

Psychology 6th edition Schacter Test Bank

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TB6 Chapter 2 Essay

1. Historically, drug addiction has been considered a moral failing. Contrast how a dogmatist and an empiricist might react to new evidence that drug addiction is a brain disease.

ANSWER: The answer should indicate that dogmatists often acquire knowledge from authority and then are reluctant to change their beliefs, even if the evidence does not support them. Dogmatists who believe that drug addiction is caused by a person's free will might consider people with drug addictions morally weak and not be swayed by data suggesting genetic predispositions, brain changes associated with drug use, and so on. Empiricists believe that people with drug addictions are morally weak; however, they might change their opinion on the issue when confronted with these data. Empiricists base their knowledge on observations of the world, and may change their opinions when confronted with new data.

2. A psychologist theorizes that depression is caused by low levels of the neurotransmitter serotonin in the brain. Generate a hypothesis based on this theory.

ANSWER: The answer should indicate that one hypothesis is that drugs that increase serotonin in the brain should alleviate symptoms of depression. Another hypothesis is that drugs that deplete serotonin levels should exacerbate symptoms of depression.

3. Although psychologists and chemists both use the scientific method, discuss three reasons the subject matter of psychology is much more difficult to study than the subject matter of chemistry.

ANSWER: The answer should provide the following information: (1) Complexity: The human brain may be the most complex system in the universe. When two chemicals react, we have precise equations that will accurately predict the outcome. Judging from the proliferation of online dating sites, we aren't that good at predicting what will happen when two people meet! (2) Variability: No two people are the same. Just because a psychologist learns something about person A does not necessarily mean that it will be applicable to person B. By comparison, all the atoms of gold on the planet are identical. (3) Reactivity: People behave differently when they know that they are being observed. A chemical reaction will proceed in the same way, regardless of who is watching it!

4. Develop an operational definition that adequately measures generosity. Discuss the construct validity and reliability of your measure.

ANSWER: The answer should provide the following: (1) a definition of the construct in terms of its measure. For example, generosity may be measured by the amount of money someone gives away each year. (2) Construct validity refers to the extent to which a measurement and a property are conceptually related. A valid measure is one that measures what it claims to measure; in other words, the operational definition of a property must overlap with the conceptual definition of that property. A researcher using invalid measures is claiming to measure one thing but is instead measuring something else. An invalid measure here may be something like a score on an IQ test. Therefore, the answer must include an explanation of why the student's operational definition truly measures generosity. (2) Reliability refers to the consistency of a measurement. A reliable measure gives the same kind of results each time it is used. For this answer consider whether the proposed definition of generosity would necessarily remain constant over time or whether something about that definition would change as the subject repeated the experiment. A researcher using unreliable measures has no basis for knowing that the measurements taken reflect aspects of the property to be measured.

5. Generate your own example of a measure that is reliable but does not have construct validity and a measure that is neither reliable nor has construct validity.

ANSWER: The answer should provide the following information: (1) For example, defining intelligence in terms of how long someone can hold their hand in a bucket of ice, measured precisely with a stopwatch. The key is that the measure might produce similar results each time, but it does not conceptually relate to the construct of intelligence. (2) For example, defining intelligence in terms of the combined score obtained from rolling 20 dice. Not only is the measure not conceptually related to the construct of intelligence (no validity), but the results will change considerably each time the measurement is taken, thus demonstrating a lack of reliability.

6. What are demand characteristics? Give at least three examples of how to control demand characteristics.

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ANSWER: The answer should indicate that demand characteristics are aspects of an observational setting that cause people to behave as they think an observer wants or expects them to behave. Examples of how to control demand characteristics: (1) Observe participants in natural environments unobtrusively. If people do not know that they are being observed, they will behave normally. (2) Ensure participant anonymity. (3) Do not reveal the true purpose of the study until after the study has been completed. (4) Measure behavior that is not susceptible to demand characteristics, such as reflexes. (5) Use a double-blind observation or measurement to eliminate the effects of researchers' expectations.

7. Describe and give an example of the third-variable problem. What can be done to solve this problem?

ANSWER: The answer should indicate that the third-variable problem is the fact that two variables may be correlated only because they are both caused by a third variable. The third-variable problem is encountered often in observations of natural correlations. Because of the third-variable problem, two variables being correlated does not necessarily mean that one is causing the other to occur. An example of the third-variable problem involves the correlation between watching violent television programming and childhood aggression. From this correlation alone, we cannot say that watching violent television programming causes aggression. It may be that a third variable — for example, lack of parental supervision — causes both television viewing and aggression. The third-variable problem always exists in correlation studies; no matter how much we control for relevant third variables, another always exists. To avoid the third-variable problem, carefully designed experiments involving manipulation of variables and random assignment must be completed.

8. A true experiment is defined as having certain characteristics. Deconstruct an experiment into its two essential characteristics, and note how each helps to achieve the overall goal of internal validity.

ANSWER: The answer should provide the following information: (1) An experiment must include manipulation and random assignment. (2) Manipulation, controlled by the experimenter, means changing the pattern of variation to which the participants are exposed. Rather than observing natural correlations, the experimenter makes systematic changes in the levels of a variable. The variable thus manipulated is called an independent variable. For example, an experimenter might expose members of one group (the experimental group) to an aversive noise as they try to complete anagrams and members of the other group (the control group) to silence while they complete the same task. The variation of silence to noise was controlled, produced, and manipulated by the experimenter. (3) Random assignment means that participants are assigned to either the experimental or control group by chance. This has the effect of reducing the possibility that any third variables appear in either group and thereby offer a compelling alternative explanation for the findings. By making sure, through random assignment, that both groups have roughly the same amount of smart, motivated, attention-paying, tall, hefty, short, myopic, claustrophobic, sensation-seeking, aggressive, retiring, bald, female, male, and so on participants, there's less chance that any of those unwanted attributes can act as a third variable. (4) Both manipulation and random assignment contribute to internal validity. By manipulating the independent variable, the researcher knows that it is the only thing that systematically differs between the groups. By randomly assigning participants to conditions, no other preexisting differences should be able to cause differences in the dependent variable.

9. Self-help guru, Louise Hay, claims that her self-help DVDs can cure cancer. Describe how you would design an experiment to test this claim. To get you started, suppose that the participants in the experiment are individuals recently diagnosed with cancer who have provided informed consent to participate in a study investigating the power of positive thinking. From here, describe how you would use random assignment and manipulation to test Hay's claim. Be sure to identify the independent and dependent variables.

ANSWER: The answer should indicate that the participants with cancer are randomly assigned to one of the two groups. Participants in one group watch the self-help DVDs every day. Participants in the other group watch a DVD of similar duration but without Hay's message (placebo). The independent variable is the type of DVD watched (self-help or placebo). The experiment might last 6 months, and the dependent variable is the number of cases in which the cancer goes into remission. If Hay's claims are correct, participants who receive the self-help DVDs should show a higher rate of remission.

10. In the context of experimentation, describe how internal and external validity are established.

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ANSWER: The answer should provide the following information: (1) Internal validity: characteristic of an experiment that allows us to draw accurate inferences about the causal relationship between an independent and dependent variable. Rules of validity for an internally valid experiment: An independent variable has been effectively manipulated. Participants have been randomly assigned to the control and experimental groups. A dependent variable has been measured in an unbiased way, with a valid and reliable measure. A correlation has been observed between the pattern of variation created in the independent variable and the pattern of variation measured in the dependent variable. (2) If an experiment has been conducted properly (as described above), then we can be confident that the observed changes in the dependent variable were caused by our manipulating of the independent variable. (3) External validity: characteristic of an experiment in which the independent variables are operationally defined in a normal, typical, or realistic way. For example, if we operationally define violent television programming and childhood aggression in realistic ways, then we can feel somewhat confident in generalizing the results of our study to similar children watching similar television shows.

11. Describe Type I and Type II errors. How do psychologists avoid these errors?

ANSWER: The answer should include the following: (1) Type I errors occur when researchers conclude that there is a relationship between two variables when in fact there is not. (2) Type II errors occur when researchers conclude that there is not a relationship between two variables when in fact there is. (3) Psychologists cannot avoid these errors, but they do attempt to minimize the risk of whichever error seems worse in a particular situation.

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12. Explain the difference between a population and a sample. Then discuss the relationship between random sampling and generalizing findings from the sample to the population.

ANSWER: The answer should provide the following information: (1) A population refers to all members of a group who potentially could be measured. All students currently enrolled at your school would be a population. All residents of your city in 1900 would also be a population. All girls who, in January 2008, were between the ages of 13 and 17, had blonde hair, and were taller than 5'0" would also be a population. (2) A sample is a smaller group drawn from a larger population. If the sample is randomly drawn from the population, and large enough, it will resemble the population on all variables. Therefore, psychologists can generalize their results to the population when they study a random sample.

13. According to Sir Francis Bacon, what two human tendencies interfere with our ability to think critically? Provide examples of each.

ANSWER: The answer should indicate that, according to Bacon, humans have the tendency to see what they expect or want to see and usually fail to consider what they cannot see. (1) Expectancies can alter our perceptions. Consider an example where participants watch a video of a young girl reading aloud. If the participants were first told that the girl came from an affluent family, they rated her reading ability higher than if told she came from a family of lower socioeconomic status. (2) Biases can alter our perceptions. For example, when you watch a presidential debate, you rarely note the flubs of your favorite candidate but are quick to point out those of the other candidate. (3) Our beliefs and expectations also affect the sources of information at our disposal. We tend to expose ourselves only to information that is already consistent with our beliefs. For example, conservatives watch conservative cable news networks and liberals expose themselves to more liberal media. (4) In making decisions, people often fail to consider that the most important piece of information might be the one that is absent. For example, suppose a burglary has been committed. Amateur detectives might focus all of their attention on scouring the crime scene, gathering physical evidence. A trained detective would also consider that which is missing, asking questions such as "Why are there no signs of forced entry?" and "Why didn't the dog bark?"

14. List at least three rules of ethics that psychologists must follow to maintain the safety, well-being, and dignity of their participants.

ANSWER: The answer should discuss three of these concepts: informed consent, freedom from coercion, protection from harm, risk-benefit analysis, deception, debriefing, and confidentiality. (1) Informed consent: a written agreement to participate in a study made by a person who has been informed of all the risks of participation. (2) Freedom from coercion: Researchers cannot force people to participate unwillingly in an experiment. (3) Protection from harm: Psychologists will use the safest method possible. (4) Risk-benefit analysis: Participants may not be asked to accept large risks. (5) Deception can be used only if adequately justified, no alternative is available, and the act of deception will not increase risk to participants. (6) Debriefing: a verbal description of the true nature and purpose of a study that psychologists provide to people after they have participated in the study. (7) Confidentiality: Private and personal data obtained during a study should be kept confidential.

TB6 Chapter 2 Multiple Choice

1. _____ is the conviction that accurate knowledge of the world can be acquired by observing it, whereas _____ involves the tendency to cling to one's beliefs.

- a. Methodology; empiricism
- b. Dogmatism; empiricism
- c. Empiricism; dogmatism
- d. Empiricism; methodology

ANSWER: c

2. _____ is forming beliefs based on the accurate knowledge of the world gained by observing it, while _____ is forming beliefs based on our previous beliefs.

- a. Dogmatism; empiricism
- b. Method; dogmatism
- c. Empiricism; method
- d. Empiricism; dogmatism

ANSWER: d

3. _____ use specific rules and techniques to observe and understand natural phenomena.

- a. Idealists
- b. Empiricists
- c. Dogmatists
- d. Humanists

ANSWER: b

4. A schoolteacher seeks help from the school psychologist because a child in their class is particularly unruly. The psychologist visits the class one day to observe the child. Knowing that they are being watched, the child is on their best behavior. Which quality illustrated in this scenario makes it difficult for psychologists to study human behavior?

- a. complexity
- b. variability
- c. reactivity
- d. reliability

ANSWER: c

5. _____ involves holding onto previous beliefs about the world, whereas _____ involves basing beliefs on objective observations of the world.

- a. Methodology; empiricism
- b. Dogmatism; empiricism
- c. Empiricism; dogmatism
- d. Empiricism; methodology

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ANSWER: b

6. Which statement describes a difference between a hypothesis and a theory?
- a. A hypothesis establishes a general principle through experiments, whereas a theory is based on a specific observation that is limited to a single instance.
 - b. A hypothesis explains a set of theories, whereas a theory explains a set of laws.
 - c. A hypothesis is a falsifiable prediction made by a theory, whereas a theory is an explanation of a natural phenomenon.
 - d. A hypothesis needs to be proven to be true, whereas a theory is inherently true.

ANSWER: c

7. Which technique is good to use to avoid the problem of demand characteristics in an experiment?
- a. revealing the expected results to the participants before starting the experiment
 - b. gathering scientific information by observing people without their knowledge
 - c. clearly explaining the true purpose of the experiment to the participants
 - d. asking the participants to respond to questionnaires in front of a selected sample of people

ANSWER: b

8. Santi observes that some children take their first steps at 9 months old, while others do not begin walking until they are 18 months old. This observation demonstrates that one of the reasons humans can be so difficult to study is their:
- a. development.
 - b. variability.
 - c. demand characteristics.
 - d. reliability.

ANSWER: b

9. The belief that accurate knowledge of the world requires observations of it is called:
- a. empiricism.
 - b. methodology.
 - c. dogmatism.
 - d. pragmatism.

ANSWER: a

10. A measuring instrument is said to be reliable when it is able to:
- a. detect the absence of differences or changes in the magnitude of a property.
 - b. produce results that are close to the expected results.
 - c. predict actual behavior.
 - d. covary with an independent variable.

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ANSWER: a

11. The belief that one can obtain accurate knowledge about the causes of human behavior by observing people behaving in different situations exemplifies:

- a. pragmatism.
- b. dogmatism.
- c. empiricism.
- d. parsimony.

ANSWER: c

12. Which factor is an important characteristic of a good operational definition?

- a. construct validity
- b. negative correlation
- c. power
- d. positive covariance

ANSWER: a

13. _____ is defined as an instrument's ability to detect the presence of differences or changes in the magnitude of a property.

- a. Self-selection
- b. Reliability
- c. Power
- d. Significance

ANSWER: c

14. Margot wonders if people behave more aggressively when there is a full moon. To attempt to find out, she categorizes arrest records and emergency room admissions by the cycle of the moon. Margot is taking a(n) _____ approach to the question.

- a. empirical
- b. dogmatic
- c. hypothetical
- d. deductive

ANSWER: a

15. Which statement is true of a positively skewed distribution?

- a. It has a bell-shaped curve.
- b. The mean of the distribution is identical to the mode of the distribution.
- c. The mean of the distribution is greater than the mode of the distribution.
- d. The mean of the distribution is less than the mode of the distribution.

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ANSWER: c

16. When naturalistic observation is not possible, which step can psychologists take to avoid demand characteristics?

- a. allowing people to respond privately and anonymously
- b. introducing an additional variable to the study
- c. informing the participants about the exact nature of the experiment
- d. making sure it is NOT a double-masked study

ANSWER: a

17. Which value of the correlation coefficient represents the weakest degree of relationship between two variables?

- a. -0.1
- b. 0.2
- c. 0.6
- d. -1.0

ANSWER: a

18. Juliana wonders if male or female college students spend more time on social media. After obtaining university approval, Juliana develops and administers a survey to a random sample of students in an attempt to answer this question. Juliana is taking a(n) _____ approach to the question.

- a. empirical
- b. dogmatic
- c. hypothetical
- d. deductive

ANSWER: a

19. Two variables are said to be correlated when:

- a. the two variables have different values under different circumstances.
- b. the two variables have different variations under different circumstances.
- c. variations in the value of one variable are synchronized with variations in the value of the other.
- d. variations in the value of one variable are asynchronous with variations in the value of the other.

ANSWER: c

20. Natalia observes that there is a positive correlation between extracurricular activity participation and academic success. Which statement can be inferred from this observation?

- a. Students who do well academically are more likely to be involved in extracurriculars.
- b. Students who don't do well academically are more likely to be involved in extracurriculars.
- c. Students who do well academically are less likely to be involved in extracurriculars.
- d. Students who don't do well academically are more likely to be in the same social group.

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ANSWER: a

21. Throughout most of human history, people have tended to trust _____ to answer important questions.

- a. logic
- b. science
- c. authority
- d. philosophers

ANSWER: c

22. Holding to Ptolemy's theories that the earth is the center of the universe, despite contradictory observations made by Galileo upon the invention of the telescope, illustrates:

- a. hypothesis testing.
- b. dogmatism.
- c. empiricism.
- d. experimentation.

ANSWER: b

23. The more time children spend playing video games at home, the lower their grades are at school. This represents a:

- a. demand characteristic.
- b. negative correlation.
- c. positive correlation.
- d. manipulation.

ANSWER: b

24. Dr. Spelke thinks that spoken language is linked to spatial ability. She enlists two groups of people to navigate around the room, one of them doing so while talking loudly and the other while clapping hands. In this scenario, which statement is true of Dr. Spelke's study?

- a. The group that claps hands is not receiving the manipulation of the independent variable.
- b. The group that claps hands is receiving the manipulation of the independent variable.
- c. The group that talks loudly is not relevant to Dr. Spelke's study.
- d. The group that talks loudly is positively correlated to the group that claps hands.

ANSWER: a

25. In order to conduct a valid experiment, you must first manipulate a(n) _____ variable and then measure _____ variable.

- a. independent; a dependent
- b. dependent; an independent
- c. independent; the same
- d. dependent; the same

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ANSWER: a

26. Eyes and ears is to _____ as knowledge from elders is to _____.

- a. hypothesis; theory
- b. theory; hypothesis
- c. dogmatism; empiricism
- d. empiricism; dogmatism

ANSWER: d

27. In an experiment, participants are placed in one of the two groups in an experiment based on the flip of a coin. This method illustrates:

- a. statistical significance.
- b. random sampling.
- c. random assignment.
- d. double-masked observation.

ANSWER: c

28. Aaron trusts what he himself observes, not claims by others. Aaron takes a(n) _____ approach to knowledge acquisition.

- a. correlational
- b. dogmatic
- c. empirical
- d. parsimonious

ANSWER: c

29. Terrence is studying how music affects attitudes. On a hot June day, he exposes one group of college students to classical music and another group to jazz, while he measures their attitudes toward war. In this scenario, the dependent variable is the:

- a. type of music being played.
- b. students' attitudes toward war.
- c. students' psychological responses to the music.
- d. volume of the music being played.

ANSWER: b

30. If an experiment has a high degree of _____, a causal relationship can be demonstrated between all or certain variables in the experiment.

- a. reliability
- b. internal validity
- c. external validity
- d. negative correlation

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ANSWER: b

31. Susan, a researcher, examines the way a grocery store's layout affects customer's moods. She defines mood as the amount the customer talks with the cashier—with positive moods inducing more talk. The biggest problem with Susan's research is likely:

- a. internal validity.
- b. the third-variable problem.
- c. external validity.
- d. an ethics violation.

ANSWER: c

32. A boxer suddenly begins experiencing severe mood swings and exhibiting bizarre behavior. A neuropsychologist determines that the boxer has experienced traumatic brain injury, which has probably been caused by numerous concussions. The neuropsychologist then studies the functioning of the boxer's brain in detail using fMRI brain imaging techniques to learn more about the concussions. This represents a(n):

- a. experiment.
- b. naturalistic observation.
- c. double-masked observation.
- d. case method.

ANSWER: d

33. The _____ is BEST defined as a procedure for using empirical evidence to establish facts.

- a. introspective technique
- b. scientific method
- c. double-masked control
- d. dogmatic approach

ANSWER: b

34. Which statement is true about the scientific method?

- a. The scientific method takes a dogmatic approach to knowledge acquisition.
- b. The scientific method limits empirical observations to those consistent with a theory.
- c. The scientific method emphasizes the importance of nonempirical sources of information when constructing new theories.
- d. The scientific method uses empirical evidence to establish facts about the world.

ANSWER: d

35. A college recently banned the use of plastic water bottles on campus in an effort to be ecofriendly. A psychologist at the college is interested in the attitudes of the students toward this ban. They obtain a list of all the students enrolled in the college and arbitrarily select 100 students for a survey designed to assess their opinions on the ban. In this study, which method has the psychologist used to select students for the survey?

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- a. random sampling
- b. random assignment
- c. case method
- d. naturalistic observation

ANSWER: a

36. Type I error is known as a _____, while Type II error is known as a _____.

- a. false positive; false negative
- b. false negative; false positive
- c. flunk; lack of causal relationship
- d. lack of causal relationship; fluke

ANSWER: a

37. _____ is defined as an explanation of a natural phenomenon.

- a. Theory
- b. Science
- c. Hypothesis
- d. Logic

ANSWER: a

38. Katrina examined whether giving students daily quizzes improved test scores. She mistakenly concluded that there was no relationship between these two factors, when in fact, there is. She made a _____ error.

- a. Type I
- b. Type II
- c. sampling
- d. replication

ANSWER: b

39. Our beliefs shape our views of evidence by:

- a. allowing us to consider all of the available evidence.
- b. causing us to preferentially search for evidence that confirms our beliefs.
- c. causing us to search for additional evidence when we find evidence that confirms our beliefs.
- d. causing us to forget about any evidence that we don't immediately see.

ANSWER: b

40. Which of these tips will enhance critical thinking?

- a. Doubt your own conclusions and consider what you don't see.
- b. Doubt your own conclusions and examine the evidence you expected to see.
- c. Examine evidence that you expected to see and search for more evidence that confirms your

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expectations.

- d. Ask yourself, "Can I believe this evidence?"

ANSWER: a

41. Which statement is an attribute of a good theory?

- a. It can be proven correct.
- b. It cannot be tested.
- c. It is no more complicated than necessary.
- d. It makes unfalsifiable predictions.

ANSWER: c

42. According to the American Psychological Association, which statement about the use of coercion in psychological research is true?

- a. Coercion can be used in the absence of other ethical ways to conduct the research.
- b. Coercion should be used when the benefits of the research outweigh the risks to the participants.
- c. Monetary compensation can be used to persuade a person to participate.
- d. Researchers should respect a person's right to make decisions without coercion.

ANSWER: d

43. Which statement is NOT an attribute of a good theory?

- a. It can be proven correct.
- b. It is an idea about how something works.
- c. It leads to hypotheses.
- d. It makes falsifiable predictions.

ANSWER: a

44. Which of these is NOT an ethical rule that governs psychological research?

- a. Psychologists may not coerce participation.
- b. A researcher should obtain informed consent from research participants or their legal guardians.
- c. A researcher can use deception in an experiment under all circumstances.
- d. Once people are enrolled in a study, they may withdraw at any time.

ANSWER: c

45. Which of these is NOT an ethical rule concerning deception in psychological research?

- a. If the participant is deceived in any way, the researcher must provide a debriefing.
- b. Psychologists can use deception when it is justified by the study's applied value.
- c. A researcher can use deception in research involving psychological pain.
- d. Psychologists can use deception when alternative procedures are not feasible.

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ANSWER: c

46. A falsifiable prediction derived from a theory is termed a(n):

- a. experiment.
- b. operational definition.
- c. hypothesis.
- d. valid measure.

ANSWER: c

47. _____ are derived from _____.

- a. Hypotheses; theories
- b. Theories; hypotheses
- c. Empirical observations; theories
- d. Empirical observations; hypotheses

ANSWER: a

48. Darnell believes that happiness increases as a result of spending time outside. He makes a specific prediction that people who spend 2 hours per day outside for a month will be happier than those who did not spend time outside. This falsifiable prediction is termed a(n):

- a. experiment.
- b. conclusion.
- c. theory.
- d. hypothesis.

ANSWER: d

49. Issa suspects that the prefrontal cortex is involved in self-control. She asks participants to choose between \$1 now and \$30 after 30 minutes while intermittently inactivating the prefrontal cortex. She makes the specific prediction that inactivating the prefrontal cortex will increase the choice of \$1 delivered now. This testable prediction is termed a(n):

- a. experiment.
- b. empirical method.
- c. hypothesis.
- d. theory.

ANSWER: c

50. Anne has a(n) _____ that memory for childhood events is stored in a different place in the brain than memory for movement.

- a. naturalistic observation
- b. operational definition
- c. hypothesis

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d. theory

ANSWER: d

51. Trinity has a(n) _____ that humans perceive some stimuli without conscious knowledge of doing so.

- a. naturalistic observation
- b. operational definition
- c. hypothesis
- d. theory

ANSWER: d

52. The theory that God created the universe is:

- a. unfalsifiable.
- b. falsifiable.
- c. necessarily correct.
- d. necessarily incorrect.

ANSWER: a

53. The theory that ancient aliens seeded the planet with life millions of years ago and then disappeared is:

- a. unfalsifiable.
- b. completely falsifiable.
- c. necessarily correct.
- d. necessarily incorrect.

ANSWER: a

54. Which question is an unfalsifiable research question?

- a. Are people who pray daily happier than those who do not?
- b. Does God answer prayers?
- c. Do people who pray while in the hospital recover faster than those who do not?
- d. Is prayer associated with charitable giving?

ANSWER: b

55. Which statement is an unfalsifiable psychological claim?

- a. Teenagers are more sexually active than their parents tend to believe they are.
- b. People are less likely to help a stranger in need as the number of other bystanders increases.
- c. The hippocampus is a brain structure critically involved in the formation of long-term memories.
- d. Part of the human unconscious is the id, an unobservable entity that governs basic human drives.

ANSWER: d

56. Xixi's research yielded results that are consistent with a hypothesis derived from a behavioral theory of

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substance abuse. Which conclusion is correct regarding the theory?

- a. The theory is supported.
- b. The theory is proven.
- c. The theory is unfalsified.
- d. The theory is statistically significant.

ANSWER: a

57. Aleskey's research yielded results that are consistent with a hypothesis derived from a cognitive account of language development. Which conclusion is correct regarding the theory?

- a. The theory is strengthened.
- b. The theory is proven.
- c. The theory is unfalsified.
- d. The theory is statistically significant.

ANSWER: a

58. Sofia's research yielded results that are consistent with a hypothesis derived from a cognitive account of classical conditioning. Which conclusion is correct regarding the theory?

- a. The theory is proven.
- b. The theory may be disproven by subsequent research.
- c. The theory is unfalsified.
- d. The theory is statistically significant.

ANSWER: b

59. Simon's research yielded results that are consistent with his hypothesis. Which conclusion is incorrect regarding the theory?

- a. The theory is proven.
- b. The theory is supported.
- c. The theory may be refuted by other investigators.
- d. The theory may be disproven by subsequent research.

ANSWER: a

60. A set of rules and techniques for observation is termed an empirical:

- a. theory.
- b. study.
- c. definition.
- d. method.

ANSWER: d

61. An empirical method refers to:

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- a. the logical steps by which a hypothesis is derived from a theory.
- b. a set of rules and techniques for observation.
- c. the process of theory falsification.
- d. the collection of statistical techniques that can be applied to a data set.

ANSWER: b

62. Carolina wants to determine if preschoolers are more or less likely to initiate play with same or opposite gender peers. She is trying to devise a plan in which the children will not know that they are being observed. Carolina seeks a(n):

- a. empirical method.
- b. theory.
- c. hypothesis.
- d. research question.

ANSWER: a

63. Innessa wants to determine whether students use their phones more in the library or in the cafeteria. She is undecided about whether she should observe their actions or ask questions to participants about this topic using a survey. Innessa is trying to decide on the best _____ to address her research question.

- a. statistical technique
- b. theory
- c. hypothesis
- d. empirical method

ANSWER: d

64. When it gets really hot outside, Sam becomes tired and Charlie becomes angry. Their different reactions to the heat illustrate the challenge of _____ to the study of human behavior.

- a. confounds
- b. variability
- c. complexity
- d. reactivity

ANSWER: b

65. Drugs of abuse activate the reward pathway in the brain. This pathway consists of multiple brain structures, many neurotransmitters, and millions of interconnected neurons. Determining the brain changes that underlie the transition from casual drug use to addiction is a difficult process due to the _____ of the system.

- a. reliability
- b. confounds
- c. complexity
- d. reactions

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ANSWER: c

66. According to the textbook, what three things make people especially difficult to study?

- a. shyness, moodiness, and unpredictability
- b. complexity, reactivity, and unpredictability
- c. variability, reactivity, and complexity
- d. reactivity, variability, and stubbornness

ANSWER: c

67. Which reason is NOT listed by the textbook as one that makes people especially difficult to study?

- a. complexity
- b. emotionality
- c. variability
- d. reactivity

ANSWER: b

68. People are difficult to study because they often behave differently when they know that they are being observed, a phenomenon known as:

- a. unpredictability.
- b. variability.
- c. complexity.
- d. reactivity.

ANSWER: d

69. Cruella would not describe herself as the type of person who cares about animal rights, but when filling out a survey for a psychologist, she says that she does. This illustrates that people can be highly _____ when studied.

- a. dogmatic
- b. variable
- c. complex
- d. reactive

ANSWER: d

70. When participating in psychological research, participants sometimes report not their true beliefs but rather what they feel to be the socially acceptable answer. This illustrates that people can be highly _____ when studied.

- a. empirical
- b. variable
- c. complex
- d. reactive

TB6 Chapter 2 Multiple Choice

ANSWER: d

71. On a wide range of cognitive abilities, humans can be very different or highly _____ in their performance.

- a. empirical
- b. variable
- c. complex
- d. reactive

ANSWER: b

72. Because humans are so widely _____ in their cognitive abilities, it makes sense that people will find different paths to a wide range of careers.

- a. predictable
- b. variable
- c. reactive
- d. reliable

ANSWER: b

73. Using one's senses to learn about the properties of an event refers to:

- a. reactivity.
- b. operational definitions.
- c. observation.
- d. experimentation.

ANSWER: c

74. Which statement is true regarding casual observations?

- a. They form the heart of the empirical method.
- b. They are inadequate for doing science.
- c. They generally are consistent from one observer to the next.
- d. They represent a dogmatic approach to science.

ANSWER: b

75. An operational definition is:

- a. a description of a property in measurable terms.
- b. the way sciences tend to operate when forming hypotheses.
- c. the consensus scientists reach when defining their terms.
- d. a set of rules and techniques for making observations.

ANSWER: a

76. A description of a property in measurable terms is a(n):

TB6 Chapter 2 Multiple Choice

- a. theory.
- b. naturalistic observation.
- c. operational definition.
- d. hypothesis.

ANSWER: c

77. Describing length as "change in the location of light over time" is an example of a(n):

- a. measurement device.
- b. casual observation.
- c. unit of measurement.
- d. operational definition.

ANSWER: d

78. Describing time based on the duration it takes the earth to revolve around the sun is an example of a(n):

- a. measurement instrument.
- b. demand characteristic.
- c. operational definition.
- d. reactive observation.

ANSWER: c

79. Mike wants to know how many licks it takes to get to the center of his lollipop. He tells his friends that "one full gyration of the tongue around the outer surface of the lollipop" is what constitutes a "lick." In an informal way, Mike is offering a(n):

- a. measurement instrument to answer his question.
- b. way to eliminate the reactivity sometimes associated with observation.
- c. operational definition for the behavior he wants to measure.
- d. naturalistic observation.

ANSWER: c

80. Xavier wants to know how many licks it takes to get to the center of his lollipop. He tells his friends that "one full gyration of the tongue around the outer surface of the lollipop" is what constitutes a "lick." In an informal way, Xavier is offering a(n) _____ but he lacks a reliable _____ to answer the question.

- a. operational definition; theory
- b. hypothesis; instrument
- c. hypothesis; theory
- d. operational definition; instrument

ANSWER: d

81. A(n) _____ can detect the events to which an operational definition refers.

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- a. empirical method
- b. observer bias
- c. demand characteristic
- d. instrument

ANSWER: d

82. Before measuring a specific property of an object, scientists must _____ the property and it must be _____.
 - a. define; detectable
 - b. identify; researchable
 - c. detect; measurable
 - d. define; vague

ANSWER: a

83. Mike wants to know how many licks it takes to get to the center of his lollipop. He tells his friends that "one full gyration of the tongue around the outer surface of the lollipop" is what constitutes a "lick." Unfortunately, he has not developed a reliable, mechanized way to measure licks. Mike's problem deals with:
 - a. definition.
 - b. a third variable.
 - c. falsifiability.
 - d. detection.

ANSWER: d

84. The extent to which the event being measured adequately characterizes a property is referred to as:
 - a. reliability.
 - b. validity.
 - c. power.
 - d. measurement.

ANSWER: b

85. The extent to which the frequency of smiling really defines the property called happiness is an issue of measurement:
 - a. reliability.
 - b. construct validity.
 - c. power.
 - d. instrumentation.

ANSWER: b

86. A detector's ability to detect the absence of differences or changes in the magnitude of a property is:
 - a. consistency.

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- b. power.
- c. construct validity.
- d. reliability.

ANSWER: d

87. A reliable measure is one that:

- a. detects the absence of differences or changes in the magnitude of a property.
- b. tends to differentiate between accurate and inaccurate data.
- c. compensates for a weak operational definition of a property under study.
- d. is necessarily an accurate measure of an underlying property.

ANSWER: a

88. The tendency for a measure to produce different results when the quantity measured changes only slightly is known as:

- a. differentiation.
- b. power.
- c. validity.
- d. reactivity.

ANSWER: b

89. Ideally, a measurement should have validity, reliability, and _____ in order to be useful to scientists.

- a. definition
- b. accuracy
- c. power
- d. consistency

ANSWER: c

90. A bathroom scale is broken and always weighs 150 pounds, no matter who steps on it. As a measure of weight, the broken scale lacks:

- a. reliability.
- b. validity.
- c. consistency.
- d. power.

ANSWER: c

91. A bathroom scale cannot detect the difference in weights between Hassan and Carlos, because they only differ by 0.2 pounds. As a measure of weight, the scale is limited in terms of its:

- a. reliability.
- b. validity.

TB6 Chapter 2 Multiple Choice

- c. consistency.
- d. power.

ANSWER: d

92. Which measure lacks both reliability and validity?
- a. scholastic aptitude as measured by the score on an SAT test
 - b. happiness as measured by heart beats per minute
 - c. intelligence as measured in terms of birth order
 - d. class performance as measured by randomly picking a grade out of a hat

ANSWER: d

93. Roger wants to study whether level of personal income predicts happiness. He operationally defines income as "the gross amount of money a person earns in a calendar year." He operationally defines happiness as "the ability of that person to stand on one leg for longer than 3 minutes." What is glaringly wrong with Roger's study?

- a. It lacks validity; income can be measured, but happiness cannot.
- b. It lacks reliability; the operational definitions of the properties under study produce inconsistent measurements.
- c. It lacks validity; the operational definition of happiness is unrelated to the underlying property of happiness.
- d. It lacks reliability; it is difficult to precisely measure both income and happiness.

ANSWER: c

94. Vanessa and Tamika take a reaction-time test. Vanessa's reaction time is 0.23 seconds, and Tamika's reaction time is 0.25 seconds. Suppose that the stopwatch the psychologist used only measured to a tenth of a second. The psychologist concludes that Vanessa and Tamika have equal reaction times of 0.2 seconds. As a measure of reaction time, the stopwatch lacks:

- a. reliability.
- b. validity.
- c. power.
- d. reactivity.

ANSWER: c

95. When aspects of a setting cause participants to behave the way they think an observer wants them to behave, the problem of _____ is present.

- a. demand characteristics
- b. complexity
- c. validity
- d. variability

ANSWER: a

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96. Which statement is an example of a demand characteristic in everyday life?

- a. Xavier enjoys bowling on the weekends.
- b. Tim acts more polite than normal while on a date.
- c. Dae buys a certain brand of cookies because there are only a few of that brand left.
- d. Suzanne speeds so that she won't be late to work.

ANSWER: b

97. Which statement is an example of a demand characteristic in everyday life?

- a. Professor Habib is much more passionate and engaging with their class when they know that their teaching is being evaluated.
- b. Tyler eliminates dairy from his diet in order to determine whether he has dairy allergies.
- c. Sydney plays tennis at a park she's never played at because the park she usually plays at is closed.
- d. Chin is required to take a foreign language as part of his liberal arts education.

ANSWER: a

98. Which statement is an example of a demand characteristic in everyday life?

- a. Self-report measures of everyday mood tend to fluctuate unsystematically.
- b. People tend to evaluate physically attractive strangers as more positive on a plethora of dimensions than less attractive strangers.
- c. College students who receive good grades in a course tend to rate that course higher than do students who receive low grades in the course.
- d. School children are much less rowdy on the bus after a noticeable video camera is mounted in the front of the bus.

ANSWER: d

99. Which statement is an example of a demand characteristic in everyday life?

- a. Carmen weighs the pros and cons of breaking up with her partner.
- b. Adelaide has a hard time getting out of bed on rainy mornings.
- c. Dylan's spouse asks him if their new jeans look good on them.
- d. Roberto's dog barks every time a person walks by the window.

ANSWER: c

100. A technique for gathering scientific information by unobtrusively watching people in their normal environments is termed:

- a. the case study approach.
- b. descriptive statistics.
- c. naturalistic observation.
- d. experimentation.

ANSWER: c

TB6 Chapter 2 Multiple Choice

101. A researcher using naturalistic observation will gather scientific information by:

- a. measuring participants on at least two variables.
- b. unobtrusively watching people in their normal environments.
- c. manipulating a variable and then measuring any effect on behavior.
- d. administering surveys to participants that ask questions about their daily lives.

ANSWER: b

102. Which description is the BEST example of naturalistic observation research methodology?

- a. a 2nd-grade teacher manipulating reading materials to determine which promotes the greatest literacy
- b. a psychologist measuring symptoms of depression using a survey
- c. an inconspicuous economist observing the buying habits of shoppers at a grocery store
- d. a professor evaluating the degree of student learning through exam performance

ANSWER: c

103. Which description is the BEST example of naturalistic observation research methodology?

- a. recording the amount of time using cell phones by groups of students in the cafeteria
- b. asking college students how much time they spend playing games on their phones each day
- c. surveying college students about the phone features they use most
- d. randomly assigning participants to use their phones during a meal or not, and then surveying the participants about their meal satisfaction

ANSWER: a

104. Dara is curious about how many older drivers versus younger drivers shake the handle of the gas pump after they finish fueling their automobiles. Dara walks through the gas station store while casually looking out the window and recording the pump behavior of the drivers at the fueling stations. What type of research is Dara conducting?

- a. double-blind observation
- b. naturalistic observation
- c. an experiment
- d. a case study

ANSWER: b

105. A psychologist poses as a groundskeeper at a local golf course and records any instances of cheating. She finds that golfers in twosomes are less likely to cheat than golfers in foursomes. What type of research is the psychologist conducting?

- a. double-blind observation
- b. naturalistic observation
- c. an experiment
- d. a case study

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ANSWER: b

106. What is one reason naturalistic observation alone cannot solve the problem of demand characteristics?

- a. Some things of interest to psychologists do not occur naturally.
- b. It is impossible not to be detected.
- c. People become angry if they discover that someone has been watching them.
- d. Recording devices are too expensive for scientists to purchase.

ANSWER: a

107. What is one reason naturalistic observation alone cannot solve the problem of demand characteristics?

- a. It is impossible not to be detected.
- b. Some information requires direct interaction with participants.
- c. People become angry if they discover that someone has been watching them.
- d. Recording devices are too expensive for scientists to purchase.

ANSWER: b

108. What do the following have in common: a microphone concealed in the ceiling of a laboratory, filler items on a psychological survey meant to distract from a study's true purpose, and a misleading explanation told to participants about the purpose of a study?

- a. They all are forms of experimenter bias.
- b. They all are examples of unethical research.
- c. They all are examples of naturalistic observation.
- d. They all are ways of avoiding demand characteristics.

ANSWER: d

109. Which technique is NOT used to reduce demand characteristics?

- a. ensuring participant anonymity
- b. studying behavior not under voluntary control
- c. clearly identifying the purpose of the study to participants
- d. asking participants to respond in front of a group

ANSWER: d

110. What is the BEST way to make it less likely that people will be influenced by demand characteristics?

- a. pay them for their participation
- b. randomly select them from the population
- c. require that they sign their name to each survey that they complete
- d. keep them from knowing the true purpose of the observation

ANSWER: d

111. A clinical psychologist is evaluating a client recovering from a substance abuse disorder to evaluate their

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likelihood of relapse. Which measure is LEAST susceptible to demand characteristics?

- a. measuring differences in blood pressure when exposed to drug paraphernalia
- b. asking the client if they have used alcohol or drugs since their last session
- c. asking the client to rate the severity of their daily cravings on a 10-point scale
- d. showing the client pictures of drug paraphernalia and asking them if the pictures are triggering cravings

ANSWER: a

112. A consumer psychologist seeks to determine which of several product prototypes might be most preferred by consumers. The psychologist shows these prototypes to a group of participants. Which measure is LEAST susceptible to demand characteristics?

- a. participants' rank-order of the products in terms of interest
- b. participants' estimate of the likelihood that they would purchase the product
- c. participants' pupil dilation during inspection of the products
- d. participants' change in attitude toward the product before and after interacting with each

ANSWER: c

113. In a classic experiment, psychology students were assigned to work either with "bright" rats or with "dull" rats, described as such by the experimenter. After a series of tests, the students' results showed that the "bright" rats had outperformed the "dull" rats. However, in fact, all the rats were of the same strain and breed; there were no preexisting differences between the groups. What caused the difference in their performance?

- a. By chance, the rats in one group actually were brighter than those in the other group.
- b. Demand characteristics in the experiment cued the rats about how to perform in the mazes.
- c. The students' expectations about the rats' performance influenced their observations and behaviors.
- d. The students looked at average scores, rather than at each rat's individual score.

ANSWER: c

114. The results from the classic experiment involving psychology students randomly assigned to work either with "bright" rats or with "dull" rats suggest that:

- a. Labeling students as "gifted" has negative effects on their social lives.
- b. Students identified as "not gifted" actually may work harder academically due to increased motivation.
- c. Labeling students as "gifted" actually has unintended negative consequences on academic performance.
- d. Students labeled as "gifted" do better in school because teachers treat them differently.

ANSWER: d

115. In a classic experiment, psychology students were assigned to work either with "bright" rats or with "dull" rats, described as such by the experimenter. In one task involving maze-running speed, students working with "bright" rats were more likely to stop timing early, as soon as the rat approached the goal box. This

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unintentional measurement error illustrates how:

- a. expectations can influence observations.
- b. observations can influence measurement.
- c. expectations can influence reality.
- d. observations can influence reality.

ANSWER: a

116. In a classic experiment, psychology students were assigned to work either with "bright" rats or with "dull" rats, described as such by the experimenter. In a task involving learning a maze, rats arbitrarily labeled as "bright" learned the maze faster than did rats arbitrarily labeled as "dull." The experimenter suspected that the psychology students with "bright" rats took the learning task more seriously, and this was reflected in their rats' performance. This finding illustrates how:

- a. expectations can influence observations.
- b. observations can influence measurement.
- c. expectations can influence reality.
- d. observations can influence reality.

ANSWER: c

117. Which technique helps reduce bias due to prior expectations?

- a. the case method
- b. double-blind observation
- c. use of a correlation coefficient
- d. random sampling

ANSWER: b

118. An experiment in which the true purpose is hidden from the researcher as well as from the participant is called a:

- a. blind experiment.
- b. double-blind experiment.
- c. controlled experiment.
- d. correlational study.

ANSWER: b

119. A double-blind study:

- a. necessarily has sufficient power to detect group differences.
- b. usually lacks reliability.
- c. minimizes expectancy effects.
- d. cannot be used to determine cause and effect.

ANSWER: c

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120. Dr. Rodriguez is investigating a new clinical intervention to reduce depression. Patients with depression are treated with either the new intervention or cognitive behavioral therapy for 2 months, and Dr. Rodriguez records their levels of depression at weekly appointments. If a double-blind procedure is used:

- a. only Dr. Rodriguez will know which patients actually received the drug.
- b. the patients will know if they are receiving the drug or the placebo.
- c. Dr. Rodriguez will not be told the operational definition of depression.
- d. neither Dr. Rodriguez nor the patients will know which patients actually received the drug.

ANSWER: d

121. Dr. Gomez is investigating a new drug designed to reduce anxiety. Patients with an anxiety disorder are treated with either the drug or a sugar pill (placebo) for some time, and Dr. Gomez records their anxiety levels at weekly appointments. If a double-blind procedure is used, who will know if a placebo or drug was administered?

- a. the patients but not Dr. Gomez
- b. Dr. Gomez but not the patients
- c. neither Dr. Gomez nor the patients
- d. both Dr. Gomez and the patients

ANSWER: c

122. A graphical representation of the measurements of a sample that are arranged by the number of times each measurement was observed is a:

- a. Gaussian distribution.
- b. frequency distribution.
- c. normal distribution.
- d. scatter plot.

ANSWER: b

123. A frequency distribution graphically displays the:

- a. number of times each measurement occurs.
- b. probability of obtaining a particular measurement.
- c. rate at which a target behavior occurs.
- d. average derived from a set of measurements.

ANSWER: a

124. A frequency distribution in which most measurements are concentrated around the mean and fall off toward the tails, and where the two sides of the distribution are symmetrical, is called a _____ distribution.

- a. normal
- b. positively skewed
- c. negatively skewed

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d. standard

ANSWER: a

125. Another term for a normal distribution is a _____ distribution.

- a. standard
- b. Gaussian
- c. skewed
- d. bimodal

ANSWER: b

126. Which statement describes a normal distribution?

- a. It is symmetrical around a single peak in the middle.
- b. It has a peak at each end of the distribution.
- c. It is skewed to one side or the other.
- d. It resembles a straight line.

ANSWER: a

127. Which statement does NOT describe a normal distribution?

- a. It is symmetrical.
- b. It has a peak in the middle.
- c. It is positively skewed.
- d. It trails off at both ends.

ANSWER: c

128. Professor Kim creates a frequency distribution of exam scores from a class of 300 students. Possible scores on the exam ranged from 0 to 100. What should be displayed on the horizontal axis?

- a. the number of times each possible score occurred
- b. each possible score
- c. the mean of the 300 scores
- d. the name of each student

ANSWER: b

129. Professor Kim creates a frequency distribution of exam scores from a class of 300 students. Possible scores on the exam ranged from 0 to 100. What should be displayed on the vertical axis?

- a. the number of times each possible score occurred
- b. each possible score
- c. the mean of the 300 scores
- d. the name of each student

ANSWER: a

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130. An academic clinical psychologist uses Beck's Depression Inventory, a validated scale with scores ranging from 0 to 63, with higher scores indicating greater levels of depression, to measure depression levels in the population of 1,000 incoming first-year students. The psychologist creates a frequency distribution of their findings. What should be displayed on the vertical axis?

- a. the number of times each possible score occurred
- b. each possible score
- c. the mean of the 1,000 scores
- d. the categorical labels "Does Not Have Depression" and "Has Depression"

ANSWER: a

131. The MOST frequent measurement in a frequency distribution is the:

- a. mode.
- b. mean.
- c. median.
- d. range.

ANSWER: a

132. The arithmetic average of the measurements in a frequency distribution is the:

- a. mode.
- b. mean.
- c. median.
- d. range.

ANSWER: b

133. If an odd number of scores are put in order from lowest to highest, the score in the middle position is the:

- a. mode.
- b. mean.
- c. median.
- d. range.

ANSWER: c

134. Half the measurements in a positively skewed frequency distribution are greater than or equal to the _____, and half are less than or equal to it.

- a. mode
- b. mean
- c. median
- d. range

ANSWER: c

135. In a normal distribution, the peak of the distribution corresponds to which measurement(s)?

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- a. the mode only
- b. the mean only
- c. the median only
- d. the mode, mean, and median

ANSWER: d

136. Under which type of frequency distribution will the mode, mean, and median all assume the same value?

- a. a normal distribution
- b. a positively skewed distribution
- c. a two-peaked (bimodal) distribution
- d. a one-peaked unsymmetrical distribution

ANSWER: a

137. In the number sequence 1 2 3 4 5 5, which number is the mode?

- a. 5
- b. 3
- c. 1
- d. 3.33

ANSWER: a

138. In the number sequence 110 120 120 130 130 140 140 140 150, which number is the mode?

- a. 140
- b. 130
- c. 131
- d. 110

ANSWER: a

139. What is the mean of the number sequence 1 3 4 4?

- a. 4
- b. 3
- c. 1
- d. 2

ANSWER: b

140. What is the mean of the number sequence 2 2 2 6?

- a. 2
- b. 4
- c. 3
- d. 6

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ANSWER: c

141. In the number sequence 4 6 3 3 9, which number is the median?

- a. 4
- b. 3
- c. 5
- d. 6

ANSWER: a

142. In the number sequence 4 1 4 7 4, which number is the median?

- a. 2
- b. 1
- c. 4
- d. 5

ANSWER: c

143. Five extremely tall members of the college basketball team are among 30 students in an introductory psychology class. If a frequency distribution is taken of height, the distribution probably will be:

- a. normal.
- b. positively skewed.
- c. negatively skewed.
- d. bimodal.

ANSWER: b

144. Seven students in a class of 30 do not study at all for their upcoming exam. If a frequency distribution is taken of study hours, the mode would be 0 and median and mean scores would be higher. The distribution is:

- a. normal.
- b. bimodal.
- c. negatively skewed.
- d. positively skewed.

ANSWER: d

145. A college dean is interested in measuring the research productivity of the seven members of the psychology department. The dean obtains the number of publications for each faculty member. They are as follows: 5, 10, 15, 15, 20, 25, and 180. If the dean wants to describe these data, which measure of central tendency would paint a misleading picture of the research productivity of the department?

- a. the mean
- b. the median
- c. the mode
- d. the standard deviation

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ANSWER: a

146. A kindergarten teacher has parents keep a log of the number of books read to their children per week. There are 20 children in the class. Most (18 of 20) of the parents reported reading 3–6 books per week. However, two parents each reported reading over 30 books per week to their children. If the teacher wants to describe these data, which measure of central tendency would paint a misleading picture of at-home reading?

- a. the mode
- b. the median
- c. the mean
- d. the standard deviation

ANSWER: c

147. The grade distribution of an "easy" course, in terms of overall percentage score (0–100), is BEST described by a:

- a. normal distribution with a large standard deviation.
- b. normal distribution with a small standard deviation.
- c. negatively skewed distribution.
- d. positively skewed distribution.

ANSWER: c

148. Life expectancy, in which the majority of people live to old age but some people die young, is BEST described by a:

- a. normal distribution with a large standard deviation.
- b. normal distribution with a small standard deviation.
- c. negatively skewed distribution.
- d. positively skewed distribution.

ANSWER: c

149. In a negatively skewed distribution, the peak of the distribution corresponds to which measurement(s)?

- a. the mode only
- b. the mean only
- c. the median only
- d. the mode, mean, and median

ANSWER: a

150. In a positively skewed distribution, the peak of the distribution corresponds to which measurement(s)?

- a. the mode only
- b. the mean only
- c. the median only
- d. the mode, mean, and median

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ANSWER: a

151. Which statement is true if scores on an examination are negatively skewed?

- a. The modal score is the same as the median score.
- b. The median score is greater than the mean score.
- c. The mean score is greater than the modal score.
- d. The peak of the frequency distribution corresponds to the mean score.

ANSWER: b

152. Which statement is true if scores on an examination are positively skewed?

- a. The modal score is the same as the median score.
- b. The median score is greater than the mean score.
- c. The mean score is greater than the modal score.
- d. The peak of the frequency distribution corresponds to the mean score.

ANSWER: c

153. The numerical difference between the smallest and largest measurements in a frequency distribution is the:

- a. mode.
- b. mean.
- c. median.
- d. range.

ANSWER: d

154. Which descriptive statistic is a measure of variability?

- a. the mode
- b. the mean
- c. the median
- d. the range

ANSWER: d

155. In the number sequence 4 5 2 2 7, what is the range?

- a. 2
- b. 4
- c. 5
- d. 7

ANSWER: c

156. In the number sequence 4 4 1 4 7, what is the range?

- a. 1

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- b. 4
- c. 5
- d. 6

ANSWER: d

157. The statistic that describes the distance between the highest score in a distribution and the lowest score in the distribution is the:

- a. standard deviation.
- b. mean.
- c. median.
- d. range.

ANSWER: d

158. Studies have shown that men and women have the same mean intelligence (IQ) score but that men have a larger range and standard deviation of scores. Based on this information, which statement is true?

- a. IQ scores are not normally distributed in men or women.
- b. Men are more likely than women to have extremely low scores.
- c. On average, men have higher IQs than women.
- d. Women are more likely than men to have extremely high scores.

ANSWER: b

159. Intelligence tends to be normally distributed, and studies have shown that men and women have the same mean intelligence (IQ) score. However, intelligence scores in women tend to have a smaller range and standard deviation than those in men. Based on this information, which statement is true?

- a. The modal score in men is greater than the modal score in women.
- b. The modal score in women is greater than the modal score in men.
- c. Men are more likely to have extremely low scores.
- d. Women are more likely to have extremely high scores.

ANSWER: c

160. A property that can have more than one value is called a(n):

- a. variable.
- b. modifier.
- c. adaptation.
- d. outlier.

ANSWER: a

161. Correlations detect:

- a. the power of a measure.
- b. patterns of variation in a series of measurements.

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- c. patterns of selection in a varied population.
- d. sources of unsystematic error in a data set.

ANSWER: b

162. A relationship between variables in which variations in the value of one variable are synchronized with variations in the value of the other is called:

- a. variance.
- b. power deviation.
- c. a correlation.
- d. an operational definition.

ANSWER: c

163. The statement "Eating less spinach is associated with a shorter life span" is an example of:

- a. a correlation.
- b. a causal relationship.
- c. variation.
- d. an estimate.

ANSWER: a

164. The statement "Class absences are associated with lower grades" is an example of a(n):

- a. correlation.
- b. causal relationship.
- c. normal distribution.
- d. experiment.

ANSWER: a

165. A _____ correlation is associated with a more-is-more relationship.

- a. negative
- b. positive
- c. strong
- d. weak

ANSWER: b

166. A _____ correlation is associated with a more-is-less relationship.

- a. negative
- b. positive
- c. strong
- d. weak

ANSWER: a

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167. Which statement describes a negative correlation?

- a. Increased time working in a group is associated with higher grades on a group project.
- b. Increased time spent in class is associated with fewer hours studying outside of class.
- c. Increased time studying for an exam is associated with higher exam grades.
- d. Increased time engaging in psychology extracurriculars is associated with higher scores on a psychology comprehensive exam.

ANSWER: b

168. Which statement describes a negative correlation?

- a. Stress levels decrease with increases in aerobic activity.
- b. Personal debt increases with increases in alcohol consumption.
- c. A greater time spent studying is associated with higher grades.
- d. People who make less eye contact have fewer friends.

ANSWER: a

169. Increases in illegal drug use is associated with a higher risk of contracting HIV/AIDS. This is MOST clearly an example of:

- a. a positive correlation.
- b. a negative correlation.
- c. an experiment.
- d. the double-blind technique.

ANSWER: a

170. The less children watch violent television programming; the less aggressive children will tend to be. This is an example of:

- a. a positive correlation.
- b. a negative correlation.
- c. cause and effect.
- d. an experiment.

ANSWER: a

171. Increased life expectancy is associated with increased risk of degenerative disease. This is an example of:

- a. a positive correlation.
- b. a negative correlation.
- c. cause and effect.
- d. an unreliable measure.

ANSWER: a

172. Kids who watch excessive amounts of TV show reductions in gray matter in the brain. This is an example

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of:

- a. a positive correlation.
- b. a negative correlation.
- c. cause and effect.
- d. an experiment.

ANSWER: b

173. Which number represents the strongest correlation coefficient (r)?

- a. -0.9
- b. 0.8
- c. -0.5
- d. 0

ANSWER: a

174. Which number represents the strongest correlation coefficient (r)?

- a. -0.65
- b. 0.80
- c. -0.30
- d. 0.04

ANSWER: b

175. Which number represents the weakest correlation coefficient (r)?

- a. -0.7
- b. 1.0
- c. -0.2
- d. $.0$

ANSWER: c

176. Which number represents the weakest correlation coefficient (r)?

- a. -0.7
- b. 1.0
- c. -0.5
- d. 0.4

ANSWER: d

177. Which number represents the strongest correlation coefficient (r)?

- a. -0.4
- b. 0.3
- c. -0.2

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d. 2.0

ANSWER: a

178. Which number represents the weakest correlation coefficient (r)?

a. -0.8

b. 0.1

c. -0.3

d. -2.0

ANSWER: b

179. A scatterplot of a perfect positive correlation would depict a(n):

a. linear increasing function.

b. linear decreasing function.

c. linear horizontal function.

d. absence of a linear relationship.

ANSWER: a

180. A scatterplot of a perfect negative correlation would depict a(n):

a. linear increasing function.

b. linear decreasing function.

c. linear horizontal function.

d. absence of a linear relationship.

ANSWER: b

181. Correlations observed in the world around us are termed:

a. natural experiments.

b. independent variables.

c. case studies.

d. natural correlations.

ANSWER: d

182. Natural correlations are:

a. correlations that can be observed under strict laboratory conditions.

b. strong-to-perfect correlations.

c. correlations observed in the real world.

d. perfect correlations.

ANSWER: c

183. What does the third-variable problem indicate?

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- a. The three variables are all causally related to one another; each is a cause of the others.
- b. The correlation between any two of the variables must be established before another correlation can be computed.
- c. Two of the variables are correlated with each other only because each is causally related to a third variable.
- d. Changes in one variable are producing changes in another variable.

ANSWER: c

184. Research has shown that there is a correlation between the amount of violence a child sees on TV and the aggressiveness of the child's behavior. One explanation of this correlation is that children who watch a great deal of violence on television have a lack of adult supervision. This explanation is an example of what kind of correlation?

- a. matched sample
- b. matched pair
- c. positive
- d. third-variable

ANSWER: d

185. Fatima wants to study how ice cream consumption in a school cafeteria is related to aggressive playground behavior during recess. If she observes that ice cream consumption is positively correlated with aggressive behavior, she could conclude all EXCEPT which of these?

- a. Ice cream causes playground aggression in children.
- b. Kids who are aggressive on the playground eat more ice cream.
- c. Lack of supervision may underlie both ice cream consumption and aggressive playground behavior.
- d. Eating more ice cream would reduce playground aggression in children.

ANSWER: d

186. An educational psychologist seeks to determine how studying duration is related to standardized test scores. The psychologist realizes that IQ is a possible third variable that could impact overall findings. What could be true of the results?

- a. IQ could underlie a relationship between studying duration and standardized test scores.
- b. Longer study duration causes higher standardized test scores.
- c. Higher IQ causes longer study duration.
- d. IQ definitively causes higher standardized test scores.

ANSWER: a

187. Researchers have found that ADHD symptoms are correlated with more hours of TV watching per day in children. Based on this, which of these can NOT be concluded?

- a. TV watching causes ADHD symptoms in children.
- b. Parents of kids with ADHD turn on the TV more frequently to distract hyperactive kids.

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- c. Parents of kids with ADHD may also have ADHD symptoms, resulting in greater use of TV in the home.
- d. Kids with ADHD may use TV viewing as a coping mechanism.

ANSWER: a

188. What is the biggest limitation in natural correlation research?

- a. Natural correlations tell us nothing about the relationship between two variables.
- b. A causal relationship cannot be inferred.
- c. Natural correlations have no predictive power.
- d. Most of the time, natural correlations are too complicated to determine.

ANSWER: b

189. Correlation is to _____ as experimentation is to _____.

- a. measurement of variables; manipulation of variables
- b. single variables; multiple variables
- c. manipulation of variables; measurement of variables
- d. unobtrusiveness; correlation

ANSWER: a

190. What is the main advantage of experimentation over correlation in determining causal relationships?

- a. Experimentation offers the possibility of controlling for all potential third variables at once.
- b. Experimentation involves multiple variables, whereas correlation involves only two variables.
- c. Experimentation systematically controls third variables one at a time, in sequence.
- d. Experimentation uses the matched pairs and matched samples techniques to control for specific third variables.

ANSWER: a

191. What are the two key features to an experiment?

- a. manipulation and random assignment
- b. manipulation and correlation
- c. random assignment and correlation
- d. manipulation and predictability

ANSWER: a

192. Manipulation and random assignment are two key features of:

- a. naturalistic observation.
- b. matched-samples correlational designs.
- c. an experiment.
- d. natural correlations.

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ANSWER: c

193. What is the only way to determine a causal relationship between two variables?

- a. observation
- b. correlation
- c. measurement
- d. experimentation

ANSWER: d

194. If Dr. Fung wants to determine whether cocaine increases hyperactivity, what research strategy should be used?

- a. experiment
- b. natural correlation
- c. matched-pairs correlation
- d. case study method

ANSWER: a

195. If an investigator wants to determine if playing violent video games causes aggression, what research strategy should be used?

- a. naturalistic observation
- b. natural correlation
- c. matched-pairs correlation
- d. experiment

ANSWER: d

196. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the aggressiveness in the children. The fact that the researchers arranged for some children to watch violence on television and others to not is an example of:

- a. variability.
- b. the third-variable problem.
- c. correlation.
- d. manipulation.

ANSWER: d

197. In an experiment conducted to determine the effects of alcohol on driving behavior, researchers administered varying amounts of alcohol to each participant before asking them to use a driving simulator. In this experiment, the amount of alcohol is:

- a. positively correlated.
- b. the third-variable problem.

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- c. negatively correlated.
- d. manipulated.

ANSWER: d

198. What does the term *manipulation* mean in the context of performing an experiment?

- a. the ability to design an experiment so that participants react in certain predetermined ways
- b. the ability to change a variable in order to determine its causal powers
- c. the ability to hold constant third variables
- d. the ability to control the responses of research participants

ANSWER: b

199. In the context of an experiment, the variable that is manipulated is termed the _____ variable.

- a. independent
- b. dependent
- c. third
- d. predictor

ANSWER: a

200. In the context of an experiment, the independent variable is the variable that is:

- a. eliminated.
- b. held constant.
- c. manipulated.
- d. measured.

ANSWER: c

201. In the context of an experiment, the variable that is measured is termed the _____ variable.

- a. independent
- b. dependent
- c. third
- d. predictor

ANSWER: b

202. In the context of an experiment, the dependent variable is the variable that is:

- a. eliminated.
- b. held constant.
- c. manipulated.
- d. measured.

ANSWER: d

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203. In the context of an experiment, participants in the group we use to determine causation:

- a. are exposed to a third variable.
- b. behave as they normally would.
- c. receive a particular manipulation.
- d. are not treated differently from any other participants.

ANSWER: c

204. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What is/are the independent variable(s)?

- a. the level of aggressiveness at the end of the month
- b. the amount of violence watched on television
- c. the level of aggressiveness at the end of the month and the amount of violence watched on television
- d. the children

ANSWER: b

205. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What is/are the dependent variable(s)?

- a. the level of aggressiveness at the end of the month
- b. the amount of violence watched on television
- c. the level of aggressiveness at the end of the month and the amount of violence watched on television
- d. the children

ANSWER: a

206. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What were the children who were exposed to violent television?

- a. the group they used to get the baseline measurement from
- b. the group who received no treatment
- c. the group who received the manipulation of the dependent variable
- d. the group who received the manipulation of the independent variable

ANSWER: d

207. In an experiment, researchers exposed half the children to 2 hours of violence on television every day for a month and made sure the other half saw no violence on television at all. At the end of the month, they measured the level of aggressiveness in the children. What were the children who were NOT exposed to any violence on television?

- a. the group who receive the third variable
- b. the group who received the manipulation of the dependent variable

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- c. the group who received no manipulation
- d. the group who received the manipulation of the independent variable

ANSWER: c

208. In an experiment, researchers exposed half of the participants to loud noise during a memory-encoding task. The room was quiet for the other half of the participants. Later, all participants were given a memory test and the number of correct items recalled was obtained for each participant. What is the independent variable?

- a. the number of items recalled
- b. the noise level during the encoding task
- c. the time interval between encoding and recall
- d. the probability of being assigned to the two groups

ANSWER: b

209. In an experiment, researchers exposed half of the participants to loud noise during a memory-encoding task. The room was quiet for the other half of the participants. Later, all participants were given a memory test and the number of correct items recalled was obtained for each participant. What is the dependent variable?

- a. the number of items recalled
- b. the noise level during the encoding task
- c. the time interval between encoding and recall
- d. the probability of being assigned to the two groups

ANSWER: a

210. In an experiment, researchers exposed half of the participants to loud noise during a memory-encoding task. The room was quiet for the other half of the participants. Later, all participants were given a memory test and the number of correct items recalled was obtained for each participant. In this example the memory test is the:

- a. independent variable.
- b. dependent variable.
- c. third variable.
- d. confounding variable.

ANSWER: b

211. In an experiment, researchers exposed half of the participants to loud noise during a memory-encoding task. The room was quiet for the other half of the participants. Later, all participants were given a memory test and the number of correct items recalled was obtained for each participant. In this example the noise is the:

- a. independent variable.
- b. dependent variable.
- c. third variable.
- d. confounding variable.

ANSWER: a

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212. Researchers wanted to see if adults were actually afraid of the dark by exposing them to different levels of light in a room while measuring their heart rates. In this experiment, heart rate is both the _____ and the _____.

- a. experimental group; dependent variable
- b. operational definition of fear; independent variable
- c. experimental group; independent variable
- d. operational definition of fear; dependent variable

ANSWER: d

213. Researchers wanted to see if adults were actually afraid of the dark by exposing them to different levels of light in a room while measuring their heart rates. In this experiment, what are the different levels of light?

- a. the dependent variable
- b. the independent variable
- c. the third variable
- d. the confounding variable

ANSWER: b

214. Researchers wanted to see if adults were actually afraid of the dark by exposing them to different levels of light in a room while measuring their heart rates. In this experiment, what are the heart rates of the participants?

- a. the dependent variable
- b. the independent variable
- c. the third variable
- d. the confounding variable

ANSWER: a

215. When one manipulates an independent variable, at least how many groups are created?

- a. one
- b. two
- c. three
- d. four

ANSWER: b

216. When the _____ variable is manipulated, at least _____ group(s) is/are created.

- a. dependent; one
- b. dependent; two
- c. independent; one
- d. independent; two

ANSWER: d

217. Researchers wanted to see if listening to calm music would reduce heart rates. Half of the research

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participants sat quietly and listened to calm music, and the other half sat quietly and listened to no music at all. In this example, listening to calm music is the:

- a. dependent variable.
- b. independent variable.
- c. third variable.
- d. confounding variable.

ANSWER: b

218. Researchers wanted to see if listening to calm music would reduce heart rates. Half of the research participants sat quietly and listened to calm music, and the other half sat quietly and listened to no music at all. In this example, heart rate is the:

- a. dependent variable.
- b. independent variable.
- c. third variable.
- d. confounding variable.

ANSWER: a

219. A researcher wants to assess the effects of varying amounts of marijuana on reaction time. Three groups of people are given a low, moderate, or high dose of the drug. A fourth group is given an inactive dose. After consuming their dose, each participant completes a reaction time task. In this experiment, the independent variable is:

- a. the number of groups.
- b. the drug dose.
- c. the reaction time task.
- d. reaction time.

ANSWER: b

220. A researcher wants to assess the effects of varying amounts of marijuana on reaction time. Three groups of people are given a low, moderate, or high dose of the drug. A fourth group is given an inactive dose. After consuming their dose, each participant completes a reaction time task. In this experiment, the dependent variable is:

- a. the number of groups.
- b. the drug dose.
- c. the reaction time task.
- d. reaction time.

ANSWER: d

221. Seamus wants to see if room size affects happiness. He invites participants to the laboratory, where half are seated for 20 minutes in a small booth, and the other half are seated for 20 minutes in a booth that is twice the size but otherwise identical. Seamus then asks members of each group to rate their level of happiness. What is

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the independent variable in this experiment?

- a. the number of participants
- b. the elapsed time
- c. the size of the booths
- d. the rating of happiness

ANSWER: c

222. Seamus wants to see if room size affects happiness. He invites participants to the laboratory, where half are seated for 20 minutes in a small booth, and the other half are seated for 20 minutes in a booth that is twice the size but otherwise identical. Seamus then asks members of each group to rate their level of happiness. What is the dependent variable in this experiment?

- a. the number of participants
- b. the elapsed time
- c. the size of the booths
- d. the rating of happiness

ANSWER: d

223. Bydale Health has developed a new cancer-fighting drug. The company tests the effectiveness of the drug by conducting research using people of all age groups. The participants are segregated into groups, and each group is given a different dosage of the same drug. In this scenario, the dependent variable is the:

- a. progression of the disease.
- b. amount of money spent in developing the drug.
- c. number of participants in each group.
- d. dosage of the drug received by the first group.

ANSWER: a

224. Which statement is a conclusion based on the systematic observation that children who watch televised aggression act violently?

- a. There is no third-variable problem in this line of research.
- b. Exposure to televised aggression is an independent variable.
- c. Exposure to televised aggression is a dependent variable.
- d. Exposure to televised aggression and aggression levels of children are positively correlated.

ANSWER: d

225. _____ occurs when anything about a participant determines the value of the independent variable to which the participant was exposed.

- a. Self-selection
- b. Random assignment
- c. Informed consent
- d. Random sampling

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ANSWER: a

226. What is the major problem associated with self-selection as a way to assign participants to the varying levels of the independent variable?

- a. The treatment necessarily will work in the experimental group because those participants are especially motivated.
- b. The two groups probably will differ on many variables in addition to whether they received the treatment.
- c. Self-selection violates the requirement for informed consent.
- d. Self-selection prevents the manipulation of the independent variable and measurement of the dependent variable.

ANSWER: b

227. _____ occurs when participants are assigned to the conditions by chance.

- a. Self-selection
- b. Random assignment
- c. Double-blind experimentation
- d. Random sampling

ANSWER: b

228. Random assignment involves randomly:

- a. selecting participants for inclusion into the experiment.
- b. determining which variable will be manipulated and which will be measured.
- c. determining how many levels of the independent variable will be investigated.
- d. placing participants into the different treatments of the experiments.

ANSWER: d

229. Sachiko wants to see if watching movies helps people relax. She asks 100 participants to come to the laboratory, and as they walk in, she asks each person if they'd like to watch a movie or sit in a silent room. Based on what they've chosen, participants then spend an hour watching a movie or sitting in silence while Sachiko assesses states of alertness and relaxation. What's wrong with this experiment?

- a. She didn't choose an independent variable.
- b. She didn't measure a dependent variable.
- c. She didn't randomly assign participants to the level of the independent variable.
- d. She didn't expose participants to both movie and silent conditions.

ANSWER: c

230. Jennifer wants to see if the color of the testing room causes test anxiety. She asks 100 participants to come to a modified classroom, and as they walk in, she asks each person to choose either a testing cubicle painted bright red, or a testing cubicle painted off white. On the basis of their choices, participants spend 20 minutes in

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one or the other cubicle solving challenging math problems. Then they complete a survey asking them questions about how anxious they were during the math test. What's wrong with Jennifer's experiment?

- a. She didn't choose an independent variable.
- b. She didn't measure a dependent variable.
- c. She didn't randomly assign participants to the varying levels of the independent variable.
- d. She didn't expose participants to both colors.

ANSWER: c

231. Which method does NOT use random assignment to assign participants to groups?

- a. basing group assignment on a coin flip
- b. basing group assignment on a dice roll
- c. basing group assignment on the outcome of a random number generator
- d. basing group assignment on the order in which participants arrive to be studied

ANSWER: d

232. Valentina wants to examine whether taking practice quizzes before an exam increases exam scores. She considers several methods for assigning groups. Which method does NOT use random assignment to assign participants to groups?

- a. basing group assignment on a coin flip
- b. basing group assignment on a dice roll
- c. basing group assignment on the outcome of a random number generator
- d. basing group assignment on which psychology class they are currently taking

ANSWER: d

233. Random assignment to groups helps ensure that:

- a. demand characteristics in each group are minimized.
- b. an independent variable is manipulated in each group.
- c. groups do not differ on variables not of interest.
- d. a correlation does not exist between the independent and dependent variables.

ANSWER: c

234. Williams and Ceci (2015) sought to determine if gender biases exist in academic hiring practices. They studied almost 1,000 professors in a mock hiring situation in which each professor read the files of several job applicants and then rank-ordered the applicants in terms of most-to-least qualified. What the professors did not know was that the gender of the job applicants was randomly assigned to the professors. That is, if one professor read that job applicant A was a woman, another professor read that the same job applicant A was a man. As a result, an average rating of each applicant could be compared when that applicant was presented as a man and as a woman. In this study, what is the dependent variable?

- a. the number of professors
- b. the rank-order

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- c. the gender of the applicants
- d. the number of applicants

ANSWER: b

235. Williams and Ceci (2015) sought to determine if gender biases exist in academic hiring practices. They studied almost 1,000 professors in a mock hiring situation in which each professor read the files of several job applicants and then rank-ordered the applicants in terms of most-to-least qualified. What the professors did not know was that the gender of the job applicants was randomly assigned to the professors. That is, if one professor read that job applicant A was a woman, another professor read that the same job applicant A was a man. As a result, an average rating of each applicant could be compared when that applicant was presented as a man and as a woman. In this study, what is the independent variable?

- a. the number of professors
- b. the rank-order
- c. the gender of the applicants
- d. the number of applicants

ANSWER: c

236. Muller and Schwarz (2018) found a correlation between the number of hate crimes and hate posts on Facebook. They were able to find evidence that increased numbers of hate posts caused hate crimes because:

- a. there was no third variable that affected both hate posts and hate crimes.
- b. the hate posts occurred before the hate crimes.
- c. Facebook service was randomly and intermittently interrupted.
- d. correlational research always reveals causation.

ANSWER: c

237. Muller and Schwarz (2018) examined the relationship between hate crimes and hate posts on Facebook. The main conclusion of their research was:

- a. hate posts on Facebook motivated real-life hate crime.
- b. hate crimes occurred before hate posts.
- c. hate posts and hate crimes are not correlated.
- d. there are no third variables underlying both hate posts and hate crimes.

ANSWER: a

238. When random assignment fails to create equivalent groups, the problem of _____ occurs.

- a. sampling error
- b. self-selection
- c. third variables
- d. external validity

ANSWER: c

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239. Experiments do not adequately control for third variables when:

- a. participants are not randomly selected for study.
- b. not enough levels of the independent variable are studied.
- c. the manipulation actually causes changes in the dependent variable.
- d. random assignment fails to create equivalent groups.

ANSWER: d

240. If differences between the groups in an experiment are obtained, and the odds are acceptably low that random assignment hasn't failed in an experiment, the results of the experiment are said to:

- a. be reliable.
- b. have internal validity.
- c. be statistically significant.
- d. have external validity.

ANSWER: c

241. Statistical significance is achieved if the odds of obtaining the same results by dumb luck are less than:

- a. 1%.
- b. 2%.
- c. 5%.
- d. 10%.

ANSWER: c

242. A result is said to be statistically significant if the odds that random assignment has failed in an experiment is less than:

- a. 2%.
- b. 5%.
- c. 10%.
- d. 25%.

ANSWER: b

243. A p-value stands for:

- a. a measure of central tendency.
- b. a measure of variability.
- c. the probability that differences are due to dumb luck.
- d. the probability that differences are truly real.

ANSWER: c

244. The experimental and control groups differ on the dependent measure. Which result of an inferential statistic would indicate a statistically significant result?

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- a. $p > 0.5$
- b. $p < 0.5$
- c. $p > 0.05$
- d. $p < 0.05$

ANSWER: d

245. The characteristic of an experiment that establishes the causal relationship between variables is termed:

- a. power.
- b. reliability.
- c. internal validity.
- d. external validity.

ANSWER: c

246. If an experiment is internally valid, then one can infer that:

- a. manipulating the independent variable caused the changes in the dependent variable.
- b. the independent and dependent variables were correlated but not necessarily causally related.
- c. the variables were defined optimally in terms of validity.
- d. the same results would be obtained if we replicated the experiment in a different population.

ANSWER: a

247. In a class of 35 students, the odds that two people in the group share a birthday are:

- a. 2%.
- b. 10%.
- c. 20%.
- d. 85%.

ANSWER: d

248. People routinely _____ the likelihood of coincidences happening by chance.

- a. underestimate
- b. overestimate
- c. fail to guess
- d. guess accurately

ANSWER: a

249. External validity means that:

- a. an experiment used reliable measures of the independent variable.
- b. a correlation was established between an independent and a dependent variable.
- c. an experiment has been verified by a group of scientists not associated with the study.
- d. the variables in an experiment have been defined in a normal, typical, or realistic way.

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ANSWER: d

250. The closer an experiment is to arranging circumstances similar to the real world, the more psychologists can claim it has:

- a. internal validity.
- b. external validity.
- c. reliability.
- d. statistical significance.

ANSWER: b

251. Most experiments in psychology lack:

- a. external validity.
- b. internal validity.
- c. randomization.
- d. manipulation.

ANSWER: a

252. Externally invalid experiments are not problematic when the goal of the research is to:

- a. model a real-world phenomenon.
- b. generalize research findings to different cultures.
- c. make naturalistic observations.
- d. test hypotheses derived from theories.

ANSWER: d

253. The chair of the psychology department wants to determine the average GPA of all psychology majors at the college. They compile a list of the GPAs of all the psychology majors and calculate the average. The chairperson is working with data from a(n):

- a. experiment.
- b. population.
- c. sample.
- d. case study.

ANSWER: b

254. The chair of the psychology department wants to determine the average GPA of all the psychology majors in the United States. The chairperson randomly selects 50 colleges and universities and compiles a list of the GPAs of all the psychology majors at those institutions. This list represents a:

- a. study group.
- b. population.
- c. sample.
- d. case study.

TB6 Chapter 2 Multiple Choice

ANSWER: c

255. The size of the population is signified by which symbol?

- a. n
- b. N
- c. p
- d. P

ANSWER: b

256. The size of the sample is signified by which symbol?

- a. n
- b. N
- c. s
- d. S

ANSWER: a

257. Dr. Sardonicus learned of a woman whose tongue turned a bright shade of green whenever she felt stressed. Although this is a rare event in the general population, Dr. Sardonicus nonetheless interviewed the woman at great length and made detailed observations about her behavior. Dr. Sardonicus used _____ to gather data.

- a. naturalistic observation
- b. the case method
- c. random sampling
- d. the law of large numbers

ANSWER: b

258. A psychologist who studies memory processes by investigating the remarkable ability of Akira Haraguchi to accurately recite pi to 100,000 digits is using:

- a. experimentation.
- b. the case method.
- c. self-selection.
- d. the double-blind technique.

ANSWER: b

259. The phrase " $n = 1$ " means that:

- a. the results are not statistically significant.
- b. there is a perfect correlation between two variables.
- c. there is only one participant in the study.
- d. there is only one independent variable.

TB6 Chapter 2 Multiple Choice

ANSWER: c

260. Which mathematical expression distinguishes the case method from other types of research?

- a. $n > N$
- b. $N > n$
- c. $n = 1$
- d. $N < 0.05$

ANSWER: c

261. When every member of a population has an equal chance of being included in a sample, what sampling process is being used?

- a. reliability sampling
- b. random assignment
- c. random sampling
- d. convenience sampling

ANSWER: c

262. When every member of a population has an equal chance of being included in a sample, the sample is said to be _____ the population.

- a. representative of
- b. replicable to
- c. statistically significant to
- d. internally valid to

ANSWER: a

263. Random sampling allows psychologists to _____ the sample to the population.

- a. infer causation from
- b. compare
- c. generalize from
- d. remove third variables from

ANSWER: c

264. Random _____ allows psychologists to generalize from the _____ to the _____.

- a. sampling; population; sample
- b. sampling; sample; population
- c. assignment; population; sample
- d. assignment; sample; population

ANSWER: b

265. Which statement accurately summarizes the way psychologists gather research participants?

TB6 Chapter 2 Multiple Choice

- a. Psychologists usually use random samples of the population.
- b. Psychologists typically use volunteers, often drawn from a college population.
- c. Psychologists typically select participants at random from the phone book.
- d. Psychologists select only those participants who outwardly appear to be of average intelligence.

ANSWER: b

266. Psychologists usually select participants for study based on:

- a. convenience.
- b. random sampling.
- c. random assignment.
- d. matched pairs.

ANSWER: a

267. Terry is interested in whether it is possible for a person to hold more than seven items in working memory at a time. Terry measures memory storage in volunteers who sign up for the study. What rationale would Terry give for NOT using random sampling?

- a. Sometimes the representativeness of a sample does not matter.
- b. Sometimes the representativeness of a sample cannot be determined.
- c. Sometimes the representativeness of a sample can be determined.
- d. Sometimes the representativeness of a sample is best determined by nonrandom sampling.

ANSWER: a

268. If researchers are interested in whether it is physically possible for a person to have a reaction time less than 0.05 sec, what rationale would the researchers give for not using random sampling?

- a. Sometimes the representativeness of a sample does not matter.
- b. Sometimes the representativeness of a sample cannot be determined.
- c. Sometimes the representativeness of a sample can be determined.
- d. Sometimes the representativeness of a sample is best determined by nonrandom sampling.

ANSWER: a

269. If researchers measure how some North American children behave after playing a violent video game for 2 hours and then replicate the experiment with Asian, European, and African children and then with teenagers, the researchers would be using which justification of nonrandom sampling?

- a. Sometimes the representativeness of a sample does not matter.
- b. Sometimes the representativeness of a sample is the cause of the effect.
- c. Sometimes the representativeness of a sample cannot be determined.
- d. Sometimes the representativeness of a sample can be assumed.

ANSWER: d

270. If researchers are interested in the average time it takes to press a button when a green light flashes on a

TB6 Chapter 2 Multiple Choice

screen, and they simply measure the reaction times of volunteers who sign up for the study, what rationale would the researchers give for not using random sampling?

- a. Sometimes the representativeness of a sample does not matter.
- b. Sometimes the representativeness of a sample cannot be determined.
- c. Sometimes the representativeness of a sample can be determined.
- d. Sometimes the representativeness of a sample can be assumed.

ANSWER: d

271. The generality of a study's results can be empirically determined in a(n):

- a. natural correlation.
- b. experimental design.
- c. case method.
- d. direct replication with a new sample.

ANSWER: d

272. A _____ is an experiment that uses the same procedures as a previous experiment but with a new sample from the same population.

- a. replication
- b. repetition
- c. case method
- d. natural correlation

ANSWER: a

273. In a replication, which of these is different from the experiment that is being replicated?

- a. procedure
- b. sample
- c. population
- d. method

ANSWER: b

274. A Type I error occurs when researchers conclude that there is:

- a. a causal relationship between two variables.
- b. a causal relationship between two variables when there is none.
- c. a third variable problem.
- d. no causal relationship between two variables.

ANSWER: b

275. A Type II error occurs when researchers conclude that there is:

- a. a causal relationship between two variables.

TB6 Chapter 2 Multiple Choice

- b. a causal relationship between two variables when there is none.
- c. a third variable problem.
- d. no causal relationship between two variables when in fact there is.

ANSWER: d

276. The scientific method was first formalized by:

- a. Newton.
- b. Galileo.
- c. Bacon.
- d. Descartes.

ANSWER: c

277. Which statement about critical thinking is true?

- a. Humans have a natural tendency to evaluate evidence critically.
- b. Courses designed to increase critical thinking usually are effective.
- c. Decisions based on empirical data necessarily involve critical thinking.
- d. Thought patterns that have been evolutionary adaptive often interfere with the ability to critically evaluate evidence.

ANSWER: d

278. Humans have a natural tendency to:

- a. notice evidence that is inconsistent with their beliefs.
- b. ignore what we can't see.
- c. engage in critical thinking as a default cognitive strategy.
- d. give undue importance to events that are contrary to their wishes or desires.

ANSWER: b

279. Darley and Gross (1983) showed participants a video of a girl taking a reading test. They then asked participants to rate the girl's academic ability. These researchers found that participants rated her academic ability higher if they thought that she:

- a. was from an affluent family.
- b. was from an extremely religious family.
- c. had struggled to overcome her family's poverty.
- d. was 10 years of age instead of 12 years of age.

ANSWER: a

280. Darley and Gross (1983) showed participants a video of a girl taking a reading test. Some participants were told that the girl was from an affluent family and others were told that she was from a poor family. Then participants were asked to rank the girl's academic abilities. Which statement regarding the findings of this experiment is true?

TB6 Chapter 2 Multiple Choice

- a. Ratings were unaffected by knowledge of the girl's socioeconomic status as long as she was dressed similarly in both videos.
- b. Ratings were unaffected by knowledge of the girl's socioeconomic status as long as the girl performed equally well on the reading test in both videos.
- c. Ratings were higher if they thought the girl was affluent relative to poor, but participants could not justify these ratings with evidence from the video.
- d. Ratings were higher if they thought the girl was affluent relative to poor and participants could justify these ratings with evidence from the video.

ANSWER: d

281. Participants in one study (Lord, Ross, & Lepper, 1979) were first asked about their beliefs regarding the death penalty, and then they were provided with evidence both for and against it. After studying these materials, beliefs about the death penalty were reassessed. This study found that participants:

- a. reported that their original beliefs were weakened after evaluating arguments on both sides of the debate.
- b. were more likely to favor the death penalty, regardless of their original beliefs.
- c. were more likely to oppose the death penalty, regardless of their original beliefs.
- d. reported that their original beliefs were strengthened after evaluating arguments on both sides of the debate.

ANSWER: d

282. Suppose that a local government is considering a construction project that will cost taxpayers a large amount of money. Residents have strong views on both sides of the debate. In an attempt to educate the public, the city arranges several informational sessions in which the pros and cons of the project are discussed. Which result is consistent with the psychological literature?

- a. Residents' original attitudes toward the project would be strengthened by attending the informational sessions.
- b. Residents' original attitudes toward the project would be weakened slightly by attending the informational sessions.
- c. The majority of the residents would change their minds after hearing evidence on both sides of the debate.
- d. The informational sessions would have no effect whatsoever on residents' attitudes toward the project.

ANSWER: a

283. College administrators are presented with mixed evidence that a recent initiative to increase first-year success among its students is effective. Based on results from the psychological literature, the administrators probably will decide to:

- a. discontinue the program in the absence of clear evidence of effectiveness.
- b. reduce funding for the program as a result of the ambiguous evidence.
- c. continue to fund the program fully for one additional year with the intent to discontinue the program

TB6 Chapter 2 Multiple Choice

if the data next year are inconclusive.

d. continue to fund the program as a result of perceived encouraging evidence of effectiveness.

ANSWER: d

284. People are more critical of new evidence that is:

a. consistent with common sense.

b. consistent with their attitudes or beliefs.

c. inconsistent with their attitudes or beliefs.

d. presented using emotionally charged language.

ANSWER: c

285. When presented with information that is inconsistent with their attitudes or beliefs, people generally ask themselves which question?

a. Is there any evidence here that would make me reconsider my opinion?

b. Is this evidence stronger than the evidence consistent with my beliefs?

c. What would be the social repercussions if I change my mind on this issue?

d. Is this information flawed or limited in some way?

ANSWER: d

286. Consistent with psychological research, politicians tend to surround themselves with advisors who:

a. like to play devil's advocate and challenge the politicians' beliefs on policy issues.

b. validate the politicians' beliefs on most policy issues.

c. present both sides of a policy issue in a fair and balanced way.

d. spend more time objectively considering evidence that opposes the politicians' beliefs.

ANSWER: b

287. Jeff must find four sources for a term paper he is writing on corporal punishment (e.g., spanking). Jeff's family spanked him when he misbehaved as a child, and Jeff believes that it is a useful behavioral modification technique. If Jeff is like most people, he probably will:

a. find four studies suggesting that corporal punishment is effective and relatively harmless.

b. find four studies suggesting that corporal punishment is dangerous but then attempt to discredit this research.

c. review two studies on each side of the debate in a fair and balanced way.

d. change his mind once he has reviewed the evidence on both sides of the debate.

ANSWER: a

288. April must find four sources for a term paper she is writing on the effectiveness of public assistance such as welfare in combating poverty. April tends to oppose welfare on philosophical grounds. April probably will:

a. summarize four studies suggesting that welfare is actually effective in order to consciously guard against her known biases.

TB6 Chapter 2 Multiple Choice

- b. find four studies suggesting that welfare is effective but then attempt to discredit this research.
- c. review two studies on each side of the debate in a fair and balanced way.
- d. summarize four studies suggesting that welfare is ineffective at combating poverty.

ANSWER: d

289. Which statement about the role of missing evidence in decision making is true?

- a. People have a natural tendency to seek out informational gaps in order to arrive at the best possible decision.
- b. People usually overvalue the importance of missing evidence.
- c. People usually ignore missing evidence.
- d. People have a strong tendency to actively seek missing information if what is missing would challenge their existing beliefs.

ANSWER: c

290. The public is excited about a new cancer-fighting drug that has saved the lives of over 1,000 people diagnosed with terminal cancer in just the past year. People may misjudge the effectiveness of the drug, primarily because they rarely ask which question?

- a. Does the expense of the drug make its use impractical?
- b. What are the side effects of the drug?
- c. Is the drug more effective than not obtaining any treatment?
- d. How many people took the drug and nevertheless died?

ANSWER: d

291. The public gets suckered into buying the latest weight-loss supplement from television infomercials featuring many testimonials that the supplement is effective, precisely because they rarely consider which question?

- a. How expensive will this supplement be to use long term?
- b. Do the side effects of the supplement outweigh the weight-loss benefits?
- c. How many people have taken the supplement and not lost weight?
- d. Is the supplement more effective than diet and exercise?

ANSWER: c

292. According to the textbook, the first rule of critical thinking is to:

- a. be skeptical of everything.
- b. trust only what you observe.
- c. doubt what you do see.
- d. believe information published in scientific journals.

ANSWER: c

293. Doubting one's own conclusions is:

TB6 Chapter 2 Multiple Choice

- a. inconsistent with the scientific method.
- b. a vital component of critical thinking.
- c. an adaptive psychological tendency that results from our evolutionary past.
- d. a maladaptive pattern of thinking that is taught to us at an early age.

ANSWER: b

294. In order to develop your critical thinking skills, you should:

- a. try to avoid being skeptical of new evidence.
- b. surround yourself with people who do not share your views.
- c. believe everything published in quality scientific journals.
- d. not base decisions on missing evidence.

ANSWER: b

295. According to the textbook, the second rule of critical thinking is to:

- a. be skeptical of everything.
- b. trust only what you observe.
- c. consider what you don't see.
- d. believe information published in scientific journals.

ANSWER: c

296. A psychologist discovers important research findings in their laboratory that is seemingly inconsistent with what other researchers have found. The psychologist's new results have profound implications to our understanding of human behavior. If the psychologist is critically thinking, they should first:

- a. critically evaluate previous research looking for flaws.
- b. attempt to replicate their own findings and rule out alternative explanations for their results.
- c. consider how general their findings are to people living in other cultures.
- d. contact the press and begin publicizing the findings.

ANSWER: b

297. An archaeologist discovers new evidence suggesting humans inhabited a particular area long before it was originally believed. If the archaeologist is critically thinking, they should first:

- a. critically evaluate the work of other archaeologists who argue the opposite.
- b. contact their professional colleagues who share their views and spread the good news.
- c. conduct additional tests on the evidence in an attempt to falsify their results.
- d. contact the press and begin publicizing the findings.

ANSWER: c

298. An archaeologist discovers new evidence suggesting humans inhabited a particular area long before it was originally believed. Because these results are so novel, if the archaeologist is critically thinking, they should first:

TB6 Chapter 2 Multiple Choice

- a. critically evaluate the work of other archaeologists who argue the opposite.
- b. contact archaeologists who oppose this viewpoint and ask them to evaluate the evidence.
- c. begin writing a book on their findings.
- d. contact the press and begin publicizing the findings.

ANSWER: b

299. An archaeologist discovers new evidence suggesting humans inhabited a particular area long before it was originally believed. Because these results are so novel, if the archaeologist is critically thinking, they should first:

- a. critically evaluate the work of other archaeologists who argue the opposite.
- b. contact archaeologists who share these views and ask them to evaluate the evidence.
- c. begin writing a book on the findings.
- d. look for additional evidence that may still be missing that humans inhabited the area.

ANSWER: d

300. The APA Code of Ethics does NOT mandate that psychologists must respect:

- a. theory.
- b. people.
- c. animals.
- d. the truth.

ANSWER: a

301. Which ethical code was developed as a reaction to Nazi atrocities during World War II?

- a. the Nuremberg Code
- b. the Belmont Report
- c. the Health Insurance Portability and Accountability Act
- d. the APA Code of Ethics

ANSWER: a

302. From 1932 to 1972, the U.S. government conducted the Tuskegee experiment, an example of unethical research in which Black men were denied treatment for _____ in order to study the time course of the disease.

- a. cancer
- b. syphilis
- c. schizophrenia
- d. high blood pressure

ANSWER: b

303. Which statement is NOT one of the three features of ethical scientific research as described by the Belmont Report?

TB6 Chapter 2 Multiple Choice

- a. The research has practical value.
- b. The research respects people.
- c. The research is beneficent.
- d. The research is just.

ANSWER: a

304. The term *beneficent* means that:

- a. risks and benefits should be distributed fairly to participants.
- b. participants should not be exposed to risk.
- c. researchers should attempt to maximize the benefits and minimize the risks of their research.
- d. researchers obtain an informed consent from participants.

ANSWER: c

305. A social psychologist is constantly evaluating their program of research to make sure that the benefits of the research in terms of knowledge about human behavior outweigh the risks associated with mild deception. The psychologist is evaluating whether their research is:

- a. externally valid.
- b. beneficent.
- c. just.
- d. respecting persons.

ANSWER: b

306. An educational psychologist is constantly evaluating their program of research to make sure that the benefits of the research in terms of insight into effective educational practices outweigh the risks associated with sometimes studying an ineffective teaching technique. The psychologist is evaluating whether their research is:

- a. externally valid.
- b. beneficent.
- c. just.
- d. respecting persons.

ANSWER: b

307. As a feature of ethical research, the term *just* refers to which statement?

- a. Risks and benefits should be distributed fairly to participants.
- b. Deception should not be used.
- c. Researchers should attempt to maximize the benefits and minimize the risks to participants.
- d. Researchers should obtain an informed consent from participants.

ANSWER: a

308. An educational psychologist is interested in comparing two educational techniques in a sample of

TB6 Chapter 2 Multiple Choice

preschool children. In part because they believe that one technique might be more effective than the other, children are randomly assigned to the two techniques so that every child has the same opportunity to be assigned to the more effective technique. Randomly assigning students to groups satisfies which feature of ethical research?

- a. external validity
- b. beneficence
- c. being just
- d. respecting persons

ANSWER: c

309. A psychiatrist is interested in comparing two different drugs to treat depression in a sample of patients. Because the drugs may differ both in terms of their effectiveness and in terms of side effects, patients are randomly assigned to the two drug conditions. Randomly assigning patients to groups satisfies which feature of ethical research?

- a. external validity
- b. beneficence
- c. being just
- d. respecting people

ANSWER: c

310. Participants in psychological research are free to end their participation at any time, with no threat of retribution or punishment. This freedom is consistent with which feature of ethical research?

- a. external validity
- b. beneficence
- c. being just
- d. respecting people

ANSWER: d

311. It is unethical to coerce people into participating in research, even if the research is ultimately beneficial, because doing so violates which feature of ethical research?

- a. external validity
- b. beneficence
- c. being just
- d. respecting people

ANSWER: d

312. Informed consent:

- a. must be obtained before individuals participate in an experiment.
- b. is strongly recommended but not mandatory for individuals participating in an experiment.
- c. is not necessary unless painful stimuli are involved.

TB6 Chapter 2 Multiple Choice

d. is mandatory only for participants over 18 years of age.

ANSWER: a

313. The ethical principle of _____ means that research participants are given enough information about a study to make a reasonable decision about whether to participate.

- a. freedom from coercion
- b. informed consent
- c. debriefing
- d. protection from harm

ANSWER: b

314. Jill decides to participate in research studies conducted by professors in the psychology department. Before a study begins, she is given what looks like a contract that describes the study, as well as the risks and benefits of participating. This describes:

- a. debriefing.
- b. informed consent.
- c. demand characteristics.
- d. research instructions.

ANSWER: b

315. An instructor makes it clear to their psychology students that if they do not participate in the instructor's research, they will receive a failing grade. What ethical principle has the instructor violated?

- a. freedom from coercion
- b. informed consent
- c. debriefing
- d. protection from harm

ANSWER: a

316. If there are two different research methodologies that both would answer a particular research question, psychologists are obligated to use whichever methodology minimizes risk to participants. This illustrates which ethical principle?

- a. freedom from coercion
- b. informed consent
- c. debriefing
- d. protection from harm

ANSWER: d

317. According to the American Psychological Association (APA) Code of Ethics, which statement about risk-benefit analysis is true?

- a. Participants may not be asked to take small risks.

TB6 Chapter 2 Multiple Choice

- b. Participants may be asked to accept large risks.
- c. Participants may not be asked to accept large risks.
- d. Participants may not be asked to take any risks.

ANSWER: c

318. Which statement regarding deception in psychological research is true?

- a. Deception cannot be used.
- b. Deception is a standard practice to minimize demand characteristics and does not need to be justified.
- c. Deception cannot be used if it puts participants at risk of harm or pain.
- d. Deception involving exposure to harm or pain is a justified risk only if debriefing is provided.

ANSWER: c

319. Which statement regarding deception in psychological research is true?

- a. Deception cannot be used.
- b. Deception is a standard practice to minimize demand characteristics and does not need to be justified.
- c. Deception can be used only when alternative procedures are not available, and the study has applied or scientific value.
- d. Deception can be used anytime it results in answers to an important scientific question.

ANSWER: c

320. As part of her course requirements, Rosa participates in research studies conducted by professors. After she participates, she is fully informed about the nature of the study. This describes:

- a. debriefing.
- b. informed consent.
- c. demand characteristics.
- d. risk-benefit analysis.

ANSWER: a

321. As part of her course requirements, Lei participates in research studies conducted by professors. After she participates, she is debriefed, during which:

- a. researchers attempt to put her in a good mood prior to her leaving the study.
- b. she is informed if the scientific merits learned from her participation outweigh her right to confidentiality.
- c. she is told the true purpose of the study and an attempt is made to undo any emotional changes that occurred as a result of her participation.
- d. she is informed of both the risks and the benefits of participating in the research.

ANSWER: c

322. The ethical principle of _____ is related to participants being told the true purpose and nature of an experiment after it is over.

TB6 Chapter 2 Multiple Choice

- a. informed consent
- b. debriefing
- c. protection from harm
- d. freedom from coercion

ANSWER: b

323. Which statement about divulging the true purpose of an experiment is true?

- a. The psychologist need not divulge the true purpose of an experiment.
- b. The psychologist must divulge the true purpose of the experiment before the subject participates.
- c. The psychologist must divulge the true purpose of the experiment only after it has been published.
- d. The psychologist must divulge the true purpose of the experiment after the person participates.

ANSWER: d

324. How is the psychological code of ethics as it pertains to respecting people enforced?

- a. by the honor system (self-regulation)
- b. by institutional review boards
- c. by international inspectors from the UN task force on human rights
- d. through the tenure and promotion system at colleges and universities

ANSWER: b

325. Which statement about an institutional review board is false?

- a. It is a U.S. federal agency that monitors research with humans.
- b. The board must contain at least one nonscientist.
- c. The board must contain at least one person not affiliated with the institution.
- d. It is permissible for the board to contain researchers.

ANSWER: a

326. Which statement about the use of animals in psychological research is false?

- a. Psychologists must make reasonable efforts to minimize distress to animals.
- b. Psychologists must not expose animals to painful stimuli.
- c. Surgical procedures should be conducted by qualified personnel, and animals must be under appropriate anesthesia.
- d. All research involving animals must be supervised by psychologists who are trained in research methods and the care and use of animals in research.

ANSWER: b

327. Which statement about the use of animals in psychological research is true?

- a. People for the Ethical Treatment of Animals approves of the use of animals in psychological research.

TB6 Chapter 2 Multiple Choice

- b. Most research in psychology involves the use of animals.
- c. Animals in psychological research may be exposed to painful stimuli if there is no other way to conduct the research and there is a strong justification for the research.
- d. The American Psychological Association is against the use of animals in psychological research.

ANSWER: c

328. The ethical analysis and reporting of scientific results is regulated by:

- a. federal grant agency systems.
- b. national review boards (NRBs).
- c. institutional review boards (IRBs).
- d. the honor system.

ANSWER: d

329. Institutional review boards ensure that data are ethically:

- a. collected.
- b. analyzed.
- c. interpreted.
- d. published.

ANSWER: a

330. Which authority is charged with ensuring that the research claims made by scientists respect the truth?

- a. institutional review boards
- b. state and federal legislatures
- c. ultimately, the U.S. Supreme Court
- d. no one

ANSWER: d

331. The psychologist Diederik Stapel published fraudulent research results for decades before his deception was uncovered. When caught, Stapel was:

- a. fired from his academic position and had his publications retracted.
- b. verbally warned to stop engaging in fraudulent behavior; no further action was taken due to a lack of an enforcement agency.
- c. forced to retract those publications in which fraudulent data appeared but allowed to keep his academic position.
- d. fired and sent to prison for 5 years for his fraudulent activities.

ANSWER: a

332. Which scenario constitutes fabricating the results of a research study?

- a. purposely making a computational "mistake" in order to yield favorable statistical results

TB6 Chapter 2 Multiple Choice

- b. suppressing the results of a participant in order to produce a favorable research outcome
- c. rounding data in such a way to produce a statistically desirable outcome
- d. generating fake data to go along with a fictitious study never conducted

ANSWER: d

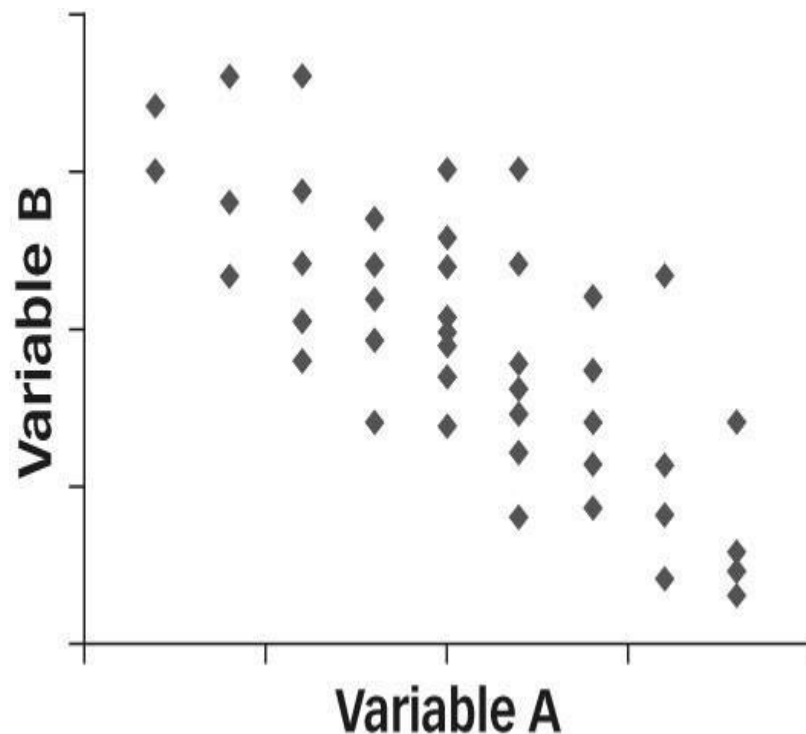
333. David engages in unethical research practices and changes the result of a statistical test from an otherwise ethically conducted study. David is engaged in:

- a. data fabrication.
- b. data falsification involving fudging the results.
- c. suppressing data inconsistent with the study's goals.
- d. willfully ignoring principles of beneficence and justness.

ANSWER: b

TB6 Chapter 2 Scenario

Examine Figure 2.1 and then answer the following question(s).



1. (Scenario 2.1) Figure 2.1 illustrates a _____ correlation between variables A and B.
 - a. moderate positive
 - b. moderate negative
 - c. perfect positive
 - d. perfect negative

ANSWER: b

2. (Scenario 2.1) Which value is MOST likely to be the correlation coefficient (r) between variables A and B?
 - a. -0.7
 - b. -0.2
 - c. $+0.8$
 - d. -1.5

ANSWER: a

3. (Scenario 2.1) Which pair is MOST likely to represent variables A and B?
 - a. height and weight
 - b. depression level and anxiety level
 - c. intelligence quotient and income
 - d. absences in course and score on final exam

TB6 Chapter 2 Scenario

ANSWER: d

4. (Scenario 2.1) Each data point on the scatterplot represents:
- a single participant's score on variables A and B.
 - a single participant's score on variable B.
 - the score on variable B at the group mean of variable A.
 - the score on variable A at the group mean of variable B.

ANSWER: a

5. (Scenario 2.1) Which statement is true given that variables A and B are significantly correlated?
- Variable A causes variable B or variable B causes variable A.
 - Knowing the score on variable A allows for an estimate of the score on variable B.
 - There is no causal relationship between the two variables.
 - A third variable cannot be responsible for the observed association.

ANSWER: b

6. (Scenario 2.1) In a simple correlational design, how would these data be collected?
- measure each participant's score on variables A and B
 - randomly assign participants to experience either variable A or variable B
 - manipulate variable A and then observe its effects on variable B
 - manipulate both variables A and B and observe their effects on the target behavior of interest

ANSWER: a

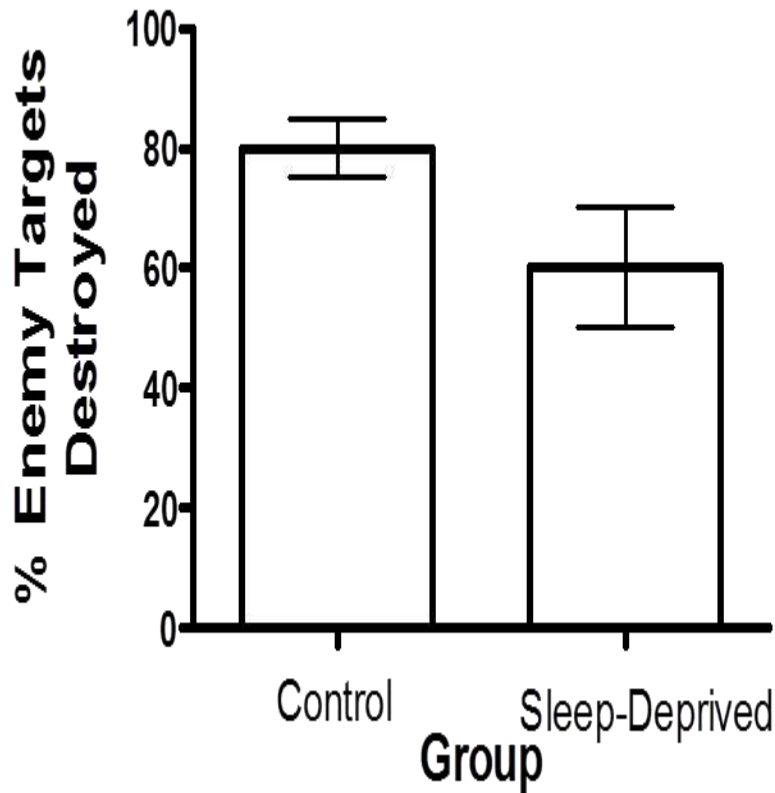
Use Scenario 2.2 to answer the question(s) below.

A psychologist was interested in the effects of sleep deprivation on performance on a vigilance task. Forty college students served as participants and were placed in either the sleep-deprivation group or the control group by coin flip. Both groups spent the night before the study in a sleep laboratory, but only the control group was allowed to sleep. By the next morning, the sleep-deprived group had been awake for the past 24 hours. At this time, both groups were provided a nutritious breakfast and, shortly thereafter, testing began in sound-attenuating cubicles, each equipped with a computer. The vigilance task consisted of monitoring the computer screen. Participants were instructed that red dots represented allied spacecraft and green dots represented enemy spacecraft. Throughout the 2-hour-long task, red dots moved across the screen in irregular patterns. Occasionally and unpredictably, a green dot would quickly move across the screen in a haphazard pattern. When a green dot appeared, the task of the participant was to move a stylus over the green dot and press a button, "destroying" the enemy spacecraft. The psychologist measured the percentage of these enemy targets that were detected and destroyed.

The results of this fictitious experiment are shown in Figure 2.2.

Figure 2.2

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7. (Scenario 2.2) Vigilance was measured as the percentage of "enemy targets" destroyed. As a measure of vigilance, this illustrates:

- a. an operational definition.
- b. reliability.
- c. statistical significance.
- d. a construct.

ANSWER: a

8. (Scenario 2.2) Shown in Figure 2.2 are the mean and standard deviation of each group's performance. Based only on this figure, what can be concluded?

- a. The difference in the sample means is not statistically significant.
- b. The difference in the sample means is reliable.
- c. On average, the sleep-deprived group performed about as well as the control group.
- d. Participants in the sleep-deprived group behaved more variably than those in the control group.

ANSWER: d

9. (Scenario 2.2) The independent variable was:

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- a. the length of the vigilance task.
- b. the percentage of enemy targets destroyed.
- c. the degree of vigilance.
- d. sleep status.

ANSWER: d

10. (Scenario 2.2) The dependent variable was:
- a. the length of the vigilance task.
 - b. the instructions given.
 - c. the percentage of enemy targets destroyed.
 - d. sleep status.

ANSWER: c

11. (Scenario 2.2) Assuming the differences between groups were statistically significant, before concluding that sleep deprivation impairs vigilance, another dependent variable the researchers probably would want to analyze is:
- a. the effects of longer or shorter periods of sleep deprivation on vigilance.
 - b. the number of times participants incorrectly destroyed an allied spacecraft.
 - c. how well the task resembles real-world instances of sustained vigilance.
 - d. the effect of breakfast on performance on the vigilance task.

ANSWER: b

12. (Scenario 2.2) Participants were placed into groups using:
- a. random sampling.
 - b. random assignment.
 - c. a double-blind technique.
 - d. the matched groups technique.

ANSWER: b

13. (Scenario 2.2) The purpose of placing participants into one of the two groups by coin flip was to:
- a. eliminate the demand characteristics operating in the study.
 - b. increase the external validity of the study.
 - c. help ensure that the two groups were equal on all possible third variables.
 - d. minimize experimenter bias.

ANSWER: c

Use Scenario 2.3 to answer the following question(s).

Müller, K., & Schwarz, C. (2018, Nov). Fanning the flames of hate: Social media and hate crime.

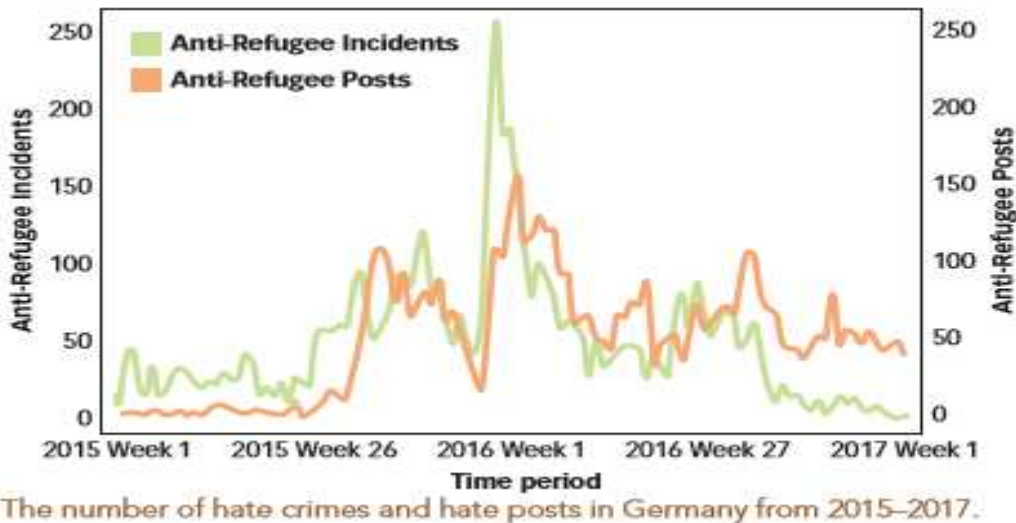
TB6 Chapter 2 Scenario

<https://ssrn.com/abstract=3082972> or <http://dx.doi.org/10.2139/ssrn.3082972>

Müller and Schwarz (2018) measured the frequency of anti-refugee Facebook posts on a right-wing, anti-immigrant German Facebook page and the frequency of hate crimes against refugees. The study was conducted in Germany over a 2-year period.

Major findings of Müller and Schwarz (2018) are presented in Figure 2.3.

Figure 2.3



14. (Scenario 2.3) Figure 2.3 illustrates a _____ correlation between anti-refugee posts and anti-refugee incidents.

- a. moderate positive
- b. moderate negative
- c. perfect positive
- d. perfect negative

ANSWER: a

15. (Scenario 2.3) Based only on the data in Figure 2.3, which is the most appropriate conclusion?

- a. Hate crimes against refugees are positively associated with hate posts on Facebook.
- b. Increased hate posts about refugees on Facebook cause violent crimes against refugees.
- c. Violent crimes against refugees tend to spark a flurry of hate posts on Facebook.
- d. A third variable, such as an economic downturn, causes both anti-immigrant posts on Facebook and crimes against refugees.

ANSWER: a

16. (Scenario 2.3) Suppose that a researcher wanted to further analyze these data by comparing the average number of anti-refugee posts made in 2015 with the average number of anti-refugee posts made in 2016. This researcher would begin by:

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- a. disregarding data that is clearly not typical of average performance, such as the data from week 1 in 2016.
- b. calculating an inferential statistic to determine if anti-refugee posts significantly increased during times of anti-refugee incidents for each year separately.
- c. obtaining a measure of central tendency for anti-refugee posts in both 2015 and 2016.
- d. calculating the normal amount of variability to be expected in anti-refugee posts when anti-refugee incidents occur.

ANSWER: c

17. (Scenario 2.3) Because Internet access is often unreliable in Germany, Müller and Schwarz (2018) also examined anti-refugee incidents as a function of whether the Internet was on or off. This constitutes a natural:

- a. check of external validity.
- b. self-selection of participants to groups.
- c. control for a possible third variable.
- d. manipulation of an independent variable.

ANSWER: d

18. (Scenario 2.3) Because Internet access is often unreliable in Germany, Müller and Schwarz (2018) also examined anti-refugee incidents as a function of whether the Internet was on or off. They found that anti-refugee incidents decreased during Internet service interruptions. Because these service interruptions were essentially random, the authors could reasonably conclude that:

- a. crimes against refugees are one cause of spikes in hate speech on social media.
- b. hate speech on social media plays a causal role in crimes against refugees.
- c. the third variable of Internet access was responsible for the apparent correlation between anti-refugee posts and anti-refugee incidents.
- d. the results of the research are generalizable to other cultures.

ANSWER: b

19. (Scenario 2.3) The authors of this study would have to contend with all of these issues EXCEPT:

- a. developing a reliable and valid operational definition of an anti-refugee Facebook post.
- b. determining if the results of the study are replicable.
- c. controlling for participant reactivity that could bias the results.
- d. determining if the results of the study have external validity.

ANSWER: c